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Welcome

Amazon SageMaker Service

Provides APIs for creating and managing Amazon SageMaker resources.

Amazon SageMaker Runtime

The Amazon SageMaker runtime API.
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The following actions are supported by Amazon SageMaker Service:

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AddTags
Service: Amazon SageMaker Service

Adds or overwrites one or more tags for the specified Amazon SageMaker resource. You can add tags to notebook instances, training jobs, hyperparameter tuning jobs, batch transform jobs, models, labeling jobs, work teams, endpoint configurations, and endpoints.

Each tag consists of a key and an optional value. Tag keys must be unique per resource. For more information about tags, see For more information, see AWS Tagging Strategies.

Note
Tags that you add to a hyperparameter tuning job by calling this API are also added to any training jobs that the hyperparameter tuning job launches after you called this API, but not to training jobs that the hyperparameter tuning job launched before you called this API. To make sure that the tags associated with a hyperparameter tuning job are also added to all training jobs that the hyperparameter tuning job launches, add the tags when you first create the tuning job by specifying them in the Tags parameter of CreateHyperParameterTuningJob (p. 49)

Request Syntax

```json
{
  "ResourceArn": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**ResourceArn (p. 9)**

The Amazon Resource Name (ARN) of the resource that you want to tag.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:.*

Required: Yes

**Tags (p. 9)**

An array of `Tag` objects. Each tag is a key-value pair. Only the `key` parameter is required. If you don't specify a value, Amazon SageMaker sets the value to an empty string.

Type: Array of `Tag` (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: Yes
Response Syntax

```json
{
    "Tags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Tags (p. 10)**

A list of tags associated with the Amazon SageMaker resource.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
AssociateTrialComponent

Service: Amazon SageMaker Service

Associates a trial component with a trial. A trial component can be associated with multiple trials. To disassociate a trial component from a trial, call the DisassociateTrialComponent (p. 258) API.

Request Syntax

```
{
    "TrialComponentName": "string",
    "TrialName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**TrialComponentName (p. 11)**

The name of the component to associated with the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

**TrialName (p. 11)**

The name of the trial to associate with.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

Response Syntax

```
{
    "TrialArn": "string",
    "TrialComponentArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
**TrialArn (p. 11)**

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[A-Za-z\-\@]+:sagemaker:[A-Za-z0-9\-\@]+:[0-9]{12}:experiment-trial/.*`

**TrialComponentArn (p. 11)**

The ARN of the trial component.

Type: String

Length Constraints: Maximum length of 256.


**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceLimitExceeded**

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

**ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateAlgorithm
Service: Amazon SageMaker Service

Create a machine learning algorithm that you can use in Amazon SageMaker and list in the AWS Marketplace.

Request Syntax

```
{
  "AlgorithmDescription": "string",
  "AlgorithmName": "string",
  "CertifyForMarketplace": boolean,
  "InferenceSpecification": {
    "Containers": [
      {
        "ContainerHostname": "string",
        "Image": "string",
        "ImageDigest": "string",
        "ModelDataUrl": "string",
        "ProductIds": "string"
      }
    ],
    "SupportedContentTypes": [ "string" ],
    "SupportedRealtimeInferenceInstanceTypes": [ "string" ],
    "SupportedResponseMIMETypes": [ "string" ],
    "SupportedTransformInstanceTypes": [ "string" ]
  },
  "TrainingSpecification": {
    "MetricDefinitions": [
      {
        "Name": "string",
        "Regex": "string"
      }
    ],
    "SupportedHyperParameters": [
      {
        "DefaultValue": "string",
        "Description": "string",
        "IsRequired": boolean,
        "IsTunable": boolean,
        "Name": "string",
        "Range": {
          "CategoricalParameterRangeSpecification": {
            "Values": [ "string" ]
          },
          "ContinuousParameterRangeSpecification": {
            "MaxValue": "string",
            "MinValue": "string"
          },
          "IntegerParameterRangeSpecification": {
            "MaxValue": "string",
            "MinValue": "string"
          }
        },
        "Type": "string"
      }
    ],
    "SupportedTrainingInstanceTypes": [ "string" ],
    "SupportedTuningJobObjectiveMetrics": [
      {
        "MetricName": "string",
        "Type": "string"
      }
    ]
  }
}
```
"SupportsDistributedTraining": boolean,
"TrainingChannels": [
  {
    "Description": "string",
    "IsRequired": boolean,
    "Name": "string",
    "SupportedCompressionTypes": [ "string" ],
    "SupportedContentType": [ "string" ],
    "SupportedInputModes": [ "string" ]
  },
"TrainingImage": "string",
"TrainingImageDigest": "string"
],
"ValidationSpecification": {
  "ValidationProfiles": [
    {
      "ProfileName": "string",
      "TrainingJobDefinition": {
        "HyperParameters": {
          "string": "string"
        },
        "InputDataConfig": [
          {
            "ChannelName": "string",
            "CompressionType": "string",
            "ContentType": "string",
            "DataSource": {
              "FileSystemDataSource": {
                "DirectoryPath": "string",
                "FileSystemAccessMode": "string",
                "FileSystemId": "string",
                "FileSystemType": "string"
              },
              "S3DataSource": {
                "AttributeNames": [ "string" ],
                "S3DataDistributionType": "string",
                "S3DataType": "string",
                "S3Uri": "string"
              }
            },
            "InputMode": "string",
            "RecordWrapperType": "string",
            "ShuffleConfig": {
              "Seed": number
            }
          }
        ],
        "OutputDataConfig": {
          "KmsKeyId": "string",
          "S3OutputPath": "string"
        },
        "ResourceConfig": {
          "InstanceCount": number,
          "InstanceType": "string",
          "VolumeKmsKeyId": "string",
          "VolumeSizeInGB": number
        },
        "StoppingCondition": {
          "MaxRuntimeInSeconds": number,
          "MaxWaitTimeInSeconds": number
        },
        "TrainingInputMode": "string"
      }
    }
  ]
}
"BatchStrategy": "string",
"Environment": {
  "string": "string"
},
"MaxConcurrentTransforms": number,
"MaxPayloadInMB": number,
"TransformInput": {
  "CompressionType": "string",
  "ContentType": "string",
  "DataSource": {
    "S3DataType": "string",
    "S3Uri": "string"
  }
},
"SplitType": "string"
},
"TransformOutput": {
  "Accept": "string",
  "AssembleWith": "string",
  "KmsKeyId": "string",
  "S3OutputPath": "string"
},
"TransformResources": {
  "InstanceCount": number,
  "InstanceType": "string",
  "VolumeKmsKeyId": "string"
}
},
"ValidationRole": "string"
}

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**AlgorithmDescription (p. 13)**

A description of the algorithm.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*

Required: No

**AlgorithmName (p. 13)**

The name of the algorithm.

Type: String


Pattern: ^[a-zA-Z0-9-]*[a-zA-Z0-9]$
Required: Yes

CertifyForMarketplace (p. 13)

Whether to certify the algorithm so that it can be listed in AWS Marketplace.

Type: Boolean

Required: No

InferenceSpecification (p. 13)

Specifies details about inference jobs that the algorithm runs, including the following:
- The Amazon ECR paths of containers that contain the inference code and model artifacts.
- The instance types that the algorithm supports for transform jobs and real-time endpoints used for inference.
- The input and output content formats that the algorithm supports for inference.

Type: InferenceSpecification (p. 569) object

Required: No

TrainingSpecification (p. 13)

Specifies details about training jobs run by this algorithm, including the following:
- The Amazon ECR path of the container and the version digest of the algorithm.
- The hyperparameters that the algorithm supports.
- The instance types that the algorithm supports for training.
- Whether the algorithm supports distributed training.
- The metrics that the algorithm emits to Amazon CloudWatch.
- Which metrics that the algorithm emits can be used as the objective metric for hyperparameter tuning jobs.
- The input channels that the algorithm supports for training data. For example, an algorithm might support train, validation, and test channels.

Type: TrainingSpecification (p. 707) object

Required: Yes

ValidationSpecification (p. 13)

Specifies configurations for one or more training jobs and that Amazon SageMaker runs to test the algorithm's training code and, optionally, one or more batch transform jobs that Amazon SageMaker runs to test the algorithm's inference code.

Type: AlgorithmValidationSpecification (p. 451) object

Required: No

Response Syntax

```
{
  "AlgorithmArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**AlgorithmArn (p. 16)**

The Amazon Resource Name (ARN) of the new algorithm.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:algorithm/.*`

**Errors**

For information about the errors that are common to all actions, see [Common Errors (p. 759)](#).

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateApp

Service: Amazon SageMaker Service

Creates a running App for the specified UserProfile. Supported Apps are JupyterServer and KernelGateway. This operation is automatically invoked by Amazon SageMaker Amazon SageMaker Studio (Studio) upon access to the associated Studio Domain, and when new kernel configurations are selected by the user. A user may have multiple Apps active simultaneously. Apps will automatically terminate and be deleted when stopped from within Studio, or when the DeleteApp API is manually called. UserProfiles are limited to 5 concurrently running Apps at a time.

Request Syntax

```json
{
   "AppName": "string",
   "AppType": "string",
   "DomainId": "string",
   "ResourceSpec": {
      "EnvironmentArn": "string",
      "InstanceType": "string"
   },
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "UserProfileName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**AppName (p. 18)**

The name of the app.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*

Required: Yes

**AppType (p. 18)**

The type of app.

Type: String

Valid Values: JupyterServer | KernelGateway | TensorBoard

Required: Yes

**DomainId (p. 18)**

The domain ID.
CreateApp

Type: String
Length Constraints: Maximum length of 63.
Required: Yes

**ResourceSpec (p. 18)**
The instance type and quantity.
Type: ResourceSpec (p. 672) object
Required: No

**Tags (p. 18)**
Each tag consists of a key and an optional value. Tag keys must be unique per resource.
Type: Array of Tag (p. 691) objects
Array Members: Minimum number of 0 items. Maximum number of 50 items.
Required: No

**UserProfileName (p. 18)**
The user profile name.
Type: String
Length Constraints: Maximum length of 63.
Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`
Required: Yes

### Response Syntax

```json
{
  "AppArn": "string"
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**AppArn (p. 19)**
The app's Amazon Resource Name (ARN).
Type: String
Length Constraints: Maximum length of 256.
Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:app/.*`

### Errors
For information about the errors that are common to all actions, see Common Errors (p. 759).
ResouceInUse

Resource being accessed is in use.

HTTP Status Code: 400

ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateAutoMLJob
Service: Amazon SageMaker Service

Creates an AutoPilot job.

After you run an AutoPilot job, you can find the best performing model by calling DescribeAutoMLJob (p. 159), and then deploy that model by following the steps described in Step 6.1: Deploy the Model to Amazon SageMaker Hosting Services.

For information about how to use AutoPilot, see Use AutoPilot to Automate Model Development.

Request Syntax

```json
{
  "AutoMLJobConfig": {
    "CompletionCriteria": {
      "MaxAutoMLJobRuntimeIn Seconds": number,
      "MaxCandidates": number,
      "MaxRuntimePerTrainingJobInSeconds": number
    },
    "SecurityConfig": {
      "EnableInterContainerTrafficEncryption": boolean,
      "VolumeKmsKeyId": "string",
      "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
      }
    }
  },
  "AutoMLJobName": "string",
  "AutoMLJobObjective": {
    "MetricName": "string"
  },
  "GenerateCandidateDefinitionsOnly": boolean,
  "InputDataConfig": [
    {"CompressionType": "string",
     "DataSource": {
      "S3DataSource": {
        "S3DataType": "string",
        "S3Uri": "string"
      }
    },
    "TargetAttributeName": "string"
  ],
  "OutputDataConfig": {
    "KmsKeyId": "string",
    "S3OutputPath": "string"
  },
  "ProblemType": "string",
  "RoleArn": "string",
  "Tags": [
    {"Key": "string",
     "Value": "string"
    }
  ]
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**AutoMLJobConfig (p. 21)**

Contains CompletionCriteria and SecurityConfig.

Type: AutoMLJobConfig (p. 470) object

Required: No

**AutoMLJobName (p. 21)**

Identifies an AutoPilot job. Must be unique to your account and is case-insensitive.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

Required: Yes

**AutoMLJobObjective (p. 21)**

Defines the job's objective. You provide a MetricName and AutoML will infer minimize or maximize. If this is not provided, the most commonly used ObjectiveMetric for problem type will be selected.

Type: AutoMLJobObjective (p. 471) object

Required: No

**GenerateCandidateDefinitionsOnly (p. 21)**

This will generate possible candidates without training a model. A candidate is a combination of data preprocessors, algorithms, and algorithm parameter settings.

Type: Boolean

Required: No

**InputDataConfig (p. 21)**

Similar to InputDataConfig supported by Tuning. Format(s) supported: CSV. Minimum of 1000 rows.

Type: Array of AutoMLChannel (p. 465) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: Yes

**OutputDataConfig (p. 21)**

Similar to OutputDataConfig supported by Tuning. Format(s) supported: CSV.

Type: AutoMLOutputDataConfig (p. 474) object

Required: Yes

**ProblemType (p. 21)**

Defines the kind of preprocessing and algorithms intended for the candidates. Options include: BinaryClassification, MulticlassClassification, and Regression.
CreateAutoMLJob

Type: String
Valid Values: BinaryClassification | MulticlassClassification | Regression
Required: No

RoleArn (p. 21)
The ARN of the role that will be used to access the data.
Type: String
Pattern: ^arn:aws[a-z\-]*:iam::\d{12}:role/?[a-zA-Z0-9-_+=,.@\-_/]+$
Required: Yes

Tags (p. 21)
Each tag consists of a key and an optional value. Tag keys must be unique per resource.
Type: Array of Tag (p. 691) objects
Array Members: Minimum number of 0 items. Maximum number of 50 items.
Required: No

Response Syntax

```json
{
    "AutoMLJobArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

AutoMLJobArn (p. 23)
When a job is created, it is assigned a unique ARN.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 256.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-zA-Z0-9\-]*:[0-9]{12}:automl-job/.*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceInUse
Resource being accessed is in use.
HTTP Status Code: 400
ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateCodeRepository

Service: Amazon SageMaker Service

Creates a Git repository as a resource in your Amazon SageMaker account. You can associate the repository with notebook instances so that you can use Git source control for the notebooks you create. The Git repository is a resource in your Amazon SageMaker account, so it can be associated with more than one notebook instance, and it persists independently from the lifecycle of any notebook instances it is associated with.

The repository can be hosted either in AWS CodeCommit or in any other Git repository.

Request Syntax

```
{
    "CodeRepositoryName": "string",
    "GitConfig": {
        "Branch": "string",
        "RepositoryUrl": "string",
        "SecretArn": "string"
    }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CodeRepositoryName (p. 25)**

The name of the Git repository. The name must have 1 to 63 characters. Valid characters are a-z, A-Z, 0-9, and - (hyphen).

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

Required: Yes

**GitConfig (p. 25)**

Specifies details about the repository, including the URL where the repository is located, the default branch, and credentials to use to access the repository.

Type: GitConfig (p. 534) object

Required: Yes

Response Syntax

```
{
    "CodeRepositoryArn": "string"
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response. The following data is returned in JSON format by the service.

**CodeRepositoryArn (p. 25)**

The Amazon Resource Name (ARN) of the new repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:code-repository/.*`

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateCompilationJob

Service: Amazon SageMaker Service

Starts a model compilation job. After the model has been compiled, Amazon SageMaker saves the resulting model artifacts to an Amazon Simple Storage Service (Amazon S3) bucket that you specify.

If you choose to host your model using Amazon SageMaker hosting services, you can use the resulting model artifacts as part of the model. You can also use the artifacts with AWS IoT Greengrass. In that case, deploy them as an ML resource.

In the request body, you provide the following:

- A name for the compilation job
- Information about the input model artifacts
- The output location for the compiled model and the device (target) that the model runs on
- The Amazon Resource Name (ARN) of the IAM role that Amazon SageMaker assumes to perform the model compilation job

You can also provide a Tag to track the model compilation job's resource use and costs. The response body contains the CompilationJobArn for the compiled job.

To stop a model compilation job, use StopCompilationJob (p. 379). To get information about a particular model compilation job, use DescribeCompilationJob (p. 166). To get information about multiple model compilation jobs, use ListCompilationJobs (p. 279).

Request Syntax

```json
{
  "CompilationJobName": "string",
  "InputConfig": {
    "DataInputConfig": "string",
    "Framework": "string",
    "S3Uri": "string"
  },
  "OutputConfig": {
    "S3OutputLocation": "string",
    "TargetDevice": "string"
  },
  "RoleArn": "string",
  "StoppingCondition": {
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CompilationJobName (p. 27)**

A name for the model compilation job. The name must be unique within the AWS Region and within your AWS account.
CreateCompilationJob

**Type:** String

**Length Constraints:** Minimum length of 1. Maximum length of 63.

**Pattern:** `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

**Required:** Yes

**InputConfig (p. 27)**

Provides information about the location of input model artifacts, the name and shape of the expected data inputs, and the framework in which the model was trained.

**Type:** `InputConfig (p. 571)` object

**Required:** Yes

**OutputConfig (p. 27)**

Provides information about the output location for the compiled model and the target device the model runs on.

**Type:** `OutputConfig (p. 638)` object

**Required:** Yes

**RoleArn (p. 27)**

The Amazon Resource Name (ARN) of an IAM role that enables Amazon SageMaker to perform tasks on your behalf.

During model compilation, Amazon SageMaker needs your permission to:

- Read input data from an S3 bucket
- Write model artifacts to an S3 bucket
- Write logs to Amazon CloudWatch Logs
- Publish metrics to Amazon CloudWatch

You grant permissions for all of these tasks to an IAM role. To pass this role to Amazon SageMaker, the caller of this API must have the `iam:PassRole` permission. For more information, see [Amazon SageMaker Roles](https://docs.aws.amazon.com/sagemaker/latest/dg/sagemaker-iam-roles.html).

**Type:** String

**Length Constraints:** Minimum length of 20. Maximum length of 2048.

**Pattern:** `^arn:aws[a-zA-Z-]*:iam::\d{12}:role/?[a-zA-Z0-9+=,.@\-_/]+\+$

**Required:** Yes

**StoppingCondition (p. 27)**

Specifies a limit to how long a model compilation job can run. When the job reaches the time limit, Amazon SageMaker ends the compilation job. Use this API to cap model training costs.

**Type:** `StoppingCondition (p. 687)` object

**Required:** Yes

**Response Syntax**

```json
{
//
```
"CompilationJobArn": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**CompilationJobArn (p. 28)**

If the action is successful, the service sends back an HTTP 200 response. Amazon SageMaker returns the following data in JSON format:

- **CompilationJobArn**: The Amazon Resource Name (ARN) of the compiled job.

  **Type**: String

  **Length Constraints**: Maximum length of 256.

  **Pattern**: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:compilation-job/.*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

- **ResourceInUse**
  
  Resource being accessed is in use.

  HTTP Status Code: 400

- **ResourceLimitExceeded**
  
  You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

  HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateDomain

Service: Amazon SageMaker Service

Creates a Domain for Amazon SageMaker Amazon SageMaker Studio (Studio), which can be accessed by end-users in a web browser. A Domain has an associated directory, list of authorized users, and a variety of security, application, policies, and Amazon Virtual Private Cloud configurations. An AWS account is limited to one Domain, per region. Users within a domain can share notebook files and other artifacts with each other. When a Domain is created, an Amazon Elastic File System (EFS) is also created for use by all of the users within the Domain. Each user receives a private home directory within the EFS for notebooks, Git repositories, and data files.

Request Syntax

```json
{
    "AuthMode": "string",
    "DefaultUserSettings": {
        "ExecutionRole": "string",
        "JupyterServerAppSettings": {
            "DefaultResourceSpec": {
                "EnvironmentArn": "string",
                "InstanceType": "string"
            }
        },
        "KernelGatewayAppSettings": {
            "DefaultResourceSpec": {
                "EnvironmentArn": "string",
                "InstanceType": "string"
            }
        },
        "SecurityGroups": [ "string" ],
        "SharingSettings": {
            "NotebookOutputOption": "string",
            "S3KmsKeyId": "string",
            "S3OutputPath": "string"
        },
        "TensorBoardAppSettings": {
            "DefaultResourceSpec": {
                "EnvironmentArn": "string",
                "InstanceType": "string"
            }
        }
    },
    "DomainName": "string",
    "HomeEfsFileSystemKmsKeyId": "string",
    "SubnetIds": [ "string" ],
    "Tags": [ {
        "Key": "string",
        "Value": "string"
    } ],
    "VpcId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.
**AuthMode (p. 30)**

The mode of authentication that members use to access the domain.

Type: String

Valid Values: SSO | IAM

Required: Yes

**DefaultUserSettings (p. 30)**

The default user settings.

Type: UserSettings (p. 749) object

Required: Yes

**DomainName (p. 30)**

A name for the domain.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9\-]*[a-zA-Z0-9]+$

Required: Yes

**HomeEfsFileSystemKmsKeyId (p. 30)**

The AWS Key Management Service encryption key ID.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .

Required: No

**SubnetIds (p. 30)**

Security setting to limit to a set of subnets.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: Yes

**Tags (p. 30)**

Each tag consists of a key and an optional value. Tag keys must be unique per resource.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No
VpcId (p. 30)

Security setting to limit the domain's communication to a Amazon Virtual Private Cloud.

Type: String

Length Constraints: Maximum length of 32.

Pattern: \([-0-9a-zA-Z]+\)

Required: Yes

Response Syntax

```
{
  "DomainArn": "string",
  "Url": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

DomainArn (p. 32)

The Amazon Resource Name (ARN) of the created domain.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z\-]*:sagemaker:[a-zA-Z0-9\-]*:[0-9]{12}:domain/.*

Url (p. 32)

The URL to the created domain.

Type: String

Length Constraints: Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateEndpoint
Service: Amazon SageMaker Service

Creates an endpoint using the endpoint configuration specified in the request. Amazon SageMaker uses the endpoint to provision resources and deploy models. You create the endpoint configuration with the CreateEndpointConfig (p. 37) API.

Use this API to deploy models using Amazon SageMaker hosting services.

For an example that calls this method when deploying a model to Amazon SageMaker hosting services, see Deploy the Model to Amazon SageMaker Hosting Services (AWS SDK for Python (Boto 3)).

**Note**
You must not delete an EndpointConfig that is in use by an endpoint that is live or while the UpdateEndpoint or CreateEndpoint operations are being performed on the endpoint. To update an endpoint, you must create a new EndpointConfig.

The endpoint name must be unique within an AWS Region in your AWS account.

When it receives the request, Amazon SageMaker creates the endpoint, launches the resources (ML compute instances), and deploys the model(s) on them.

When Amazon SageMaker receives the request, it sets the endpoint status to **Creating**. After it creates the endpoint, it sets the status to **InService**. Amazon SageMaker can then process incoming requests for inferences. To check the status of an endpoint, use the DescribeEndpoint (p. 174) API.

If any of the models hosted at this endpoint get model data from an Amazon S3 location, Amazon SageMaker uses AWS Security Token Service to download model artifacts from the S3 path you provided. AWS STS is activated in your IAM user account by default. If you previously deactivated AWS STS for a region, you need to reactivate AWS STS for that region. For more information, see Activating and Deactivating AWS STS in an AWS Region in the AWS Identity and Access Management User Guide.

**Request Syntax**

```json
{
    "EndpointConfigName": "string",
    "EndpointName": "string",
    "Tags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ]
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**EndpointConfigName (p. 34)**

The name of an endpoint configuration. For more information, see CreateEndpointConfig (p. 37).

Type: String

Length Constraints: Maximum length of 63.
Pattern: ^[a-zA-Z0-9](\-*[a-zA-Z0-9])*  
Required: Yes

**EndpointName (p. 34)**

The name of the endpoint. The name must be unique within an AWS Region in your AWS account.

  Type: String  
  Length Constraints: Maximum length of 63.
  Pattern: ^[a-zA-Z0-9](\-*[a-zA-Z0-9])*  
  Required: Yes

**Tags (p. 34)**

An array of key-value pairs. For more information, see Using Cost Allocation Tags in the AWS Billing and Cost Management User Guide.

  Type: Array of Tag (p. 691) objects  
  Array Members: Minimum number of 0 items. Maximum number of 50 items.
  Required: No

**Response Syntax**

```json
{
    "EndpointArn": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.  
The following data is returned in JSON format by the service.

**EndpointArn (p. 35)**

The Amazon Resource Name (ARN) of the endpoint.

  Type: String  
  Pattern: arn:aws[a-z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:endpoint/.*

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceLimitExceeded**

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

  HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateEndpointConfig

Service: Amazon SageMaker Service

Creates an endpoint configuration that Amazon SageMaker hosting services uses to deploy models. In
the configuration, you identify one or more models, created using the CreateModel API, to deploy and
the resources that you want Amazon SageMaker to provision. Then you call the CreateEndpoint (p. 34)
API.

**Note**

Use this API if you want to use Amazon SageMaker hosting services to deploy models into
production.

In the request, you define a ProductionVariant, for each model that you want to deploy. Each
ProductionVariant parameter also describes the resources that you want Amazon SageMaker to
provision. This includes the number and type of ML compute instances to deploy.

If you are hosting multiple models, you also assign a VariantWeight to specify how much traffic you
want to allocate to each model. For example, suppose that you want to host two models, A and B, and
you assign traffic weight 2 for model A and 1 for model B. Amazon SageMaker distributes two-thirds of
the traffic to Model A, and one-third to model B.

For an example that calls this method when deploying a model to Amazon SageMaker hosting services,
see Deploy the Model to Amazon SageMaker Hosting Services (AWS SDK for Python (Boto 3)).

**Request Syntax**

```
{
    "DataCaptureConfig": {
        "CaptureContentTypeHeader": {
            "CsvContentTypes": [ "string" ],
            "JsonContentTypes": [ "string" ]
        },
        "CaptureOptions": [
            { "CaptureMode": "string"
        ],
        "DestinationS3Uri": "string",
        "EnableCapture": boolean,
        "InitialSamplingPercentage": number,
        "KmsKeyId": "string"
    },
    "EndpointConfigName": "string",
    "KmsKeyId": "string",
    "ProductionVariants": [
        {
            "AcceleratorType": "string",
            "InitialInstanceCount": number,
            "InitialVariantWeight": number,
            "InstanceType": "string",
            "ModelName": "string",
            "VariantName": "string"
        }
    ],
    "Tags": [
        { "Key": "string",
        "Value": "string"
    ]
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**DataCaptureConfig (p. 37)**

Type: DataCaptureConfig (p. 497) object

Required: No

**EndpointConfigName (p. 37)**

The name of the endpoint configuration. You specify this name in a CreateEndpoint (p. 34) request.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  

Required: Yes

**KmsKeyId (p. 37)**

The Amazon Resource Name (ARN) of a AWS Key Management Service key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance that hosts the endpoint.

The KmsKeyId can be any of the following formats:

- Key ID: 1234abcd-12ab-34cd-56ef-1234567890ab
- Key ARN: arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab
- Alias name: alias/ExampleAlias

The KMS key policy must grant permission to the IAM role that you specify in your CreateEndpoint, UpdateEndpoint requests. For more information, refer to the AWS Key Management Service section Using Key Policies in AWS KMS.

**Note**

Certain Nitro-based instances include local storage, dependent on the instance type. Local storage volumes are encrypted using a hardware module on the instance. You can't request a KmsKeyId when using an instance type with local storage. If any of the models that you specify in the ProductionVariants parameter use nitro-based instances with local storage, do not specify a value for the KmsKeyId parameter. If you specify a value for KmsKeyId when using any nitro-based instances with local storage, the call to CreateEndpointConfig fails.

For a list of instance types that support local instance storage, see Instance Store Volumes. For more information about local instance storage encryption, see SSD Instance Store Volumes.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .*

Required: No
ProductionVariants (p. 37)

An list of ProductionVariant objects, one for each model that you want to host at this endpoint.

Type: Array of ProductionVariant (p. 657) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: Yes

Tags (p. 37)

A list of key-value pairs. For more information, see Using Cost Allocation Tags in the AWS Billing and Cost Management User Guide.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

Response Syntax

```
{
  "EndpointConfigArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

EndpointConfigArn (p. 39)

The Amazon Resource Name (ARN) of the endpoint configuration.

Type: String


Pattern: arn:aws[a-z-]*:sagemaker:[a-z0-9-]*:[0-9]{12}:endpoint-config/.*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
CreateExperiment

Service: Amazon SageMaker Service

Creates an Amazon SageMaker experiment. An experiment is a collection of trials that are observed, compared and evaluated as a group. A trial is a set of steps, called trial components, that produce a machine learning model.

The goal of an experiment is to determine the components that produce the best model. Multiple trials are performed, each one isolating and measuring the impact of a change to one or more inputs, while keeping the remaining inputs constant.

When you use Amazon SageMaker Studio or the Amazon SageMaker Python SDK, all experiments, trials, and trial components are automatically tracked, logged, and indexed. When you use the AWS SDK for Python (Boto), you must use the logging APIs provided by the SDK.

You can add tags to experiments, trials, trial components and then use the Search (p. 363) API to search for the tags.

To add a description to an experiment, specify the optional Description parameter. To add a description later, or to change the description, call the UpdateExperiment (p. 405) API.

To get a list of all your experiments, call the ListExperiments (p. 291) API. To view an experiment's properties, call the DescribeExperiment (p. 181) API. To get a list of all the trials associated with an experiment, call the ListTrials (p. 352) API. To create a trial call the CreateTrial (p. 103) API.

**Request Syntax**

```json
{
   "Description": "string",
   "DisplayName": "string",
   "ExperimentName": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**Description (p. 41)**

The description of the experiment.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .*

Required: No
Display Name (p. 41)

The name of the experiment as displayed. The name doesn't need to be unique. If you don't specify `DisplayName`, the value in `ExperimentName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](\-*[a-zA-Z0-9])*$

Required: No

Experiment Name (p. 41)

The name of the experiment. The name must be unique in your AWS account and is not case-sensitive.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](\-*[a-zA-Z0-9])*$

Required: Yes

Tags (p. 41)

A list of tags to associate with the experiment. You can use Search (p. 363) API to search on the tags.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

Response Syntax

```json
{
  "ExperimentArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ExperimentArn (p. 42)

The Amazon Resource Name (ARN) of the experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment/.*
Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateFlowDefinition
Service: Amazon SageMaker Service

Creates a flow definition.

Request Syntax

```json
{
   "FlowDefinitionName": "string",
   "HumanLoopActivationConfig": {
      "HumanLoopActivationConditionsConfig": {
         "HumanLoopActivationConditions": "string"
      }
   },
   "HumanLoopConfig": {
      "HumanTaskUiArn": "string",
      "PublicWorkforceTaskPrice": {
         "AmountInUsd": {
            "Cents": number,
            "Dollars": number,
            "TenthFractionsOfACent": number
         }
      },
      "TaskAvailabilityLifetimeInSeconds": number,
      "TaskCount": number,
      "TaskDescription": "string",
      "TaskKeywords": [ "string" ],
      "TaskTimeLimitInSeconds": number,
      "TaskTitle": "string",
      "WorkteamArn": "string"
   },
   "HumanLoopRequestSource": {
      "AwsManagedHumanLoopRequestSource": "string"
   },
   "OutputConfig": {
      "KmsKeyId": "string",
      "S3OutputPath": "string"
   },
   "RoleArn": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

FlowDefinitionName (p. 44)

The name of your flow definition.

Type: String

Patterns: `^[a-z0-9](-*[a-z0-9])*`

Required: Yes

**HumanLoopActivationConfig (p. 44)**

An object containing information about the events that trigger a human workflow.

Type: `HumanLoopActivationConfig (p. 537)` object

Required: No

**HumanLoopConfig (p. 44)**

An object containing information about the tasks the human reviewers will perform.

Type: `HumanLoopConfig (p. 538)` object

Required: Yes

**HumanLoopRequestSource (p. 44)**

Container for configuring the source of human task requests. Use to specify if Amazon Rekognition or Amazon Textract is used as an integration source.

Type: `HumanLoopRequestSource (p. 543)` object

Required: No

**OutputConfig (p. 44)**

An object containing information about where the human review results will be uploaded.

Type: `FlowDefinitionOutputConfig (p. 531)` object

Required: Yes

**RoleArn (p. 44)**

The Amazon Resource Name (ARN) of the role needed to call other services on your behalf. For example, `arn:aws:iam::1234567890:role/service-role/AmazonSageMaker-ExecutionRole-20180111T151298`.

Type: `String`


Pattern: `^arn:aws[a-z\-]*:iam::(?[a-zA-Z\-0-9+=,.@\-\_/]+)$`

Required: Yes

**Tags (p. 44)**

An array of key-value pairs that contain metadata to help you categorize and organize a flow definition. Each tag consists of a key and a value, both of which you define.

Type: Array of `Tag (p. 691)` objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

**Response Syntax**

```json
{
}
```
"FlowDefinitionArn": "string"
}

## Response Elements

If the action is successful, the service sends back an HTTP 200 response. The following data is returned in JSON format by the service.

**FlowDefinitionArn (p. 45)**

The Amazon Resource Name (ARN) of the flow definition you create.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:flow-definition/.*

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateHumanTaskUi

Service: Amazon SageMaker Service

Defines the settings you will use for the human review workflow user interface. Reviewers will see a three-panel interface with an instruction area, the item to review, and an input area.

Request Syntax

```json
{
   "HumanTaskUiName": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "UiTemplate": {
      "Content": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**HumanTaskUiName (p. 47)**

The name of the user interface you are creating.

Type: String


Pattern: ^[a-z0-9](-*[a-z0-9])*

Required: Yes

**Tags (p. 47)**

An array of key-value pairs that contain metadata to help you categorize and organize a human review workflow user interface. Each tag consists of a key and a value, both of which you define.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

**UiTemplate (p. 47)**

The Liquid template for the worker user interface.

Type: UiTemplate (p. 743) object

Required: Yes
Response Syntax

```json
{
    "HumanTaskUiArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response. The following data is returned in JSON format by the service.

**HumanTaskUiArn (p. 48)**

The Amazon Resource Name (ARN) of the human review workflow user interface you create.

- Type: String
- Length Constraints: Maximum length of 1024.
- Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:human-task-ui/.*`

Errors

For information about the errors that are common to all actions, see [Common Errors (p. 759)](#).

**ResourceInUse**

Resource being accessed is in use.

- HTTP Status Code: 400

**ResourceLimitExceeded**

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

- HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
CreateHyperParameterTuningJob

Service: Amazon SageMaker Service

Starts a hyperparameter tuning job. A hyperparameter tuning job finds the best version of a model by running many training jobs on your dataset using the algorithm you choose and values for hyperparameters within ranges that you specify. It then chooses the hyperparameter values that result in a model that performs the best, as measured by an objective metric that you choose.

Request Syntax

```json
{
    "HyperParameterTuningJobConfig": {
        "HyperParameterTuningJobObjective": {
            "MetricName": "string",
            "Type": "string"
        },
        "ParameterRanges": {
            "CategoricalParameterRanges": [
                {
                    "Name": "string",
                    "Values": [ "string" ]
                }
            ],
            "ContinuousParameterRanges": [
                {
                    "MaxValue": "string",
                    "MinValue": "string",
                    "Name": "string",
                    "ScalingType": "string"
                }
            ],
            "IntegerParameterRanges": [
                {
                    "MaxValue": "string",
                    "MinValue": "string",
                    "Name": "string",
                    "ScalingType": "string"
                }
            ]
        },
        "ResourceLimits": {
            "MaxNumberOfTrainingJobs": number,
            "MaxParallelTrainingJobs": number
        },
        "Strategy": "string",
        "TrainingJobEarlyStoppingType": "string",
        "TuningJobCompletionCriteria": {
            "TargetObjectiveMetricValue": number
        }
    },
    "HyperParameterTuningJobName": "string",
    "Tags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ],
    "TrainingJobDefinition": {
        "AlgorithmSpecification": {
            "AlgorithmName": "string",
            "MetricDefinitions": [
                {
                    "Name": "string",
                    "Type": "string",
                    "MetricName": "string",
                    "Type": "string"
                }
            ]
        }
    }
}
```
"Regex": "string",
"TrainingImage": "string",
"TrainingInputMode": "string",
"CheckpointConfig": {
  "LocalPath": "string",
  "S3Uri": "string"
},
"DefinitionName": "string",
"EnableInterContainerTrafficEncryption": boolean,
"EnableManagedSpotTraining": boolean,
"EnableNetworkIsolation": boolean,
"HyperParameterRanges": {
  "CategoricalParameterRanges": [
    {
      "Name": "string",
      "Values": [ "string" ]
    }
  ],
  "ContinuousParameterRanges": [
    {
      "MaxValue": "string",
      "MinValue": "string",
      "Name": "string",
      "ScalingType": "string"
    }
  ],
  "IntegerParameterRanges": [
    {
      "MaxValue": "string",
      "MinValue": "string",
      "Name": "string",
      "ScalingType": "string"
    }
  ]
},
"InputDataConfig": [
  {
    "ChannelName": "string",
    "CompressionType": "string",
    "ContentType": "string",
    "DataSource": {
      "FileSystemDataSource": {
        "DirectoryPath": "string",
        "FileSystemAccessMode": "string",
        "FileSystemId": "string",
        "FileSystemType": "string"
      },
      "S3DataSource": {
        "AttributeNames": [ "string" ],
        "S3DataDistributionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
      }
    },
    "InputMode": "string",
    "RecordWrapperType": "string",
    "ShuffleConfig": {
      "Seed": number
    }
  }
],
"OutputDataConfig": {
  "KmsKeyId": "string"}
CreateHyperParameterTuningJob

"S3OutputPath": "string",
"ResourceConfig": {
  "InstanceCount": number,
  "InstanceType": "string",
  "VolumeKmsKeyId": "string",
  "VolumeSizeInGB": number
},
"RoleArn": "string",
"StaticHyperParameters": {
  "string": "string"
},
"StoppingCondition": {
  "MaxRuntimeInSeconds": number,
  "MaxWaitTimeInSeconds": number
},
"TuningObjective": {
  "MetricName": "string",
  "Type": "string"
},
"VpcConfig": {
  "SecurityGroupIds": [ "string" ],
  "Subnets": [ "string" ]
}
"TrainingJobDefinitions": [
{
  "AlgorithmSpecification": {
    "AlgorithmName": "string",
    "MetricDefinitions": [
      {
        "Name": "string",
        "Regex": "string"
      }
    ],
  "TrainingImage": "string",
  "TrainingInputMode": "string"
},
  "CheckpointConfig": {
    "LocalPath": "string",
    "S3Uri": "string"
  },
  "DefinitionName": "string",
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableManagedSpotTraining": boolean,
  "EnableNetworkIsolation": boolean,
  "HyperParameterRanges": {
    "CategoricalParameterRanges": [
      {
        "Name": "string",
        "Values": [ "string" ]
      }
    ],
    "ContinuousParameterRanges": [
      {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
        "ScalingType": "string"
      }
    ],
    "IntegerParameterRanges": [
      {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
      }
    ]
  }
}
"ScalingType": "string"
],
"InputDataConfig": [
{
"ChannelName": "string",
"CompressionType": "string",
"ContentType": "string",
"DataSource": {
"FileSystemDataSource": {
"DirectoryPath": "string",
"FileSystemAccessMode": "string",
"FileSystemId": "string",
"FileSystemType": "string"
},
"S3DataSource": {
"AttributeNames": [ "string" ],
"S3DataDistributionType": "string",
"S3DataType": "string",
"S3Uri": "string"
}
},
"InputMode": "string",
"RecordWrapperType": "string",
"ShuffleConfig": { "Seed": number
}
},
"OutputDataConfig": {
"KmsKeyId": "string",
"S3OutputPath": "string"
},
"ResourceConfig": {
"InstanceCount": number,
"InstanceType": "string",
"VolumeKmsKeyId": "string",
"VolumeSizeInGB": number
},
"RoleArn": "string",
"StaticHyperParameters": { "string": "string"
},
"StoppingCondition": {
"MaxRuntimeInSeconds": number,
"MaxWaitTimeInSeconds": number
},
"TuningObjective": { "MetricName": "string",
"Type": "string"
},
"VpcConfig": {
"SecurityGroupIds": [ "string" ],
"Subnets": [ "string" ]
}
],
"WarmStartConfig": {
"ParentHyperParameterTuningJobs": [ { "HyperParameterTuningJobName": "string"
}
],
"WarmStartType": "string"}
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**HyperParameterTuningJobConfig (p. 49)**

The `HyperParameterTuningJobConfig` (p. 562) object that describes the tuning job, including the search strategy, the objective metric used to evaluate training jobs, ranges of parameters to search, and resource limits for the tuning job. For more information, see How Hyperparameter Tuning Works.

Type: `HyperParameterTuningJobConfig` (p. 562) object

Required: Yes

**HyperParameterTuningJobName (p. 49)**

The name of the tuning job. This name is the prefix for the names of all training jobs that this tuning job launches. The name must be unique within the same AWS account and AWS Region. The name must have { } to { } characters. Valid characters are a-z, A-Z, 0-9, and : + = @ _ % - (hyphen). The name is not case sensitive.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

Required: Yes

**Tags (p. 49)**

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see AWS Tagging Strategies.

Tags that you specify for the tuning job are also added to all training jobs that the tuning job launches.

Type: Array of `Tag` (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

**TrainingJobDefinition (p. 49)**

The `HyperParameterTrainingJobDefinition` (p. 556) object that describes the training jobs that this tuning job launches, including static hyperparameters, input data configuration, output data configuration, resource configuration, and stopping condition.

Type: `HyperParameterTrainingJobDefinition` (p. 556) object

Required: No

**TrainingJobDefinitions (p. 49)**

Type: Array of `HyperParameterTrainingJobDefinition` (p. 556) objects
Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

WarmStartConfig (p. 49)

Specifies the configuration for starting the hyperparameter tuning job using one or more previous tuning jobs as a starting point. The results of previous tuning jobs are used to inform which combinations of hyperparameters to search over in the new tuning job.

All training jobs launched by the new hyperparameter tuning job are evaluated by using the objective metric. If you specify IDENTICAL_DATA_AND_ALGORITHM as the WarmStartType value for the warm start configuration, the training job that performs the best in the new tuning job is compared to the best training jobs from the parent tuning jobs. From these, the training job that performs the best as measured by the objective metric is returned as the overall best training job.

Note
All training jobs launched by parent hyperparameter tuning jobs and the new hyperparameter tuning jobs count against the limit of training jobs for the tuning job.

Type: HyperParameterTuningJobWarmStartConfig (p. 567) object

Required: No

Response Syntax

```
{
   "HyperParameterTuningJobArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

HyperParameterTuningJobArn (p. 54)

The Amazon Resource Name (ARN) of the tuning job. Amazon SageMaker assigns an ARN to a hyperparameter tuning job when you create it.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:hyper-parameter-tuning-job/.*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400
ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateLabelingJob
Service: Amazon SageMaker Service

Creates a job that uses workers to label the data objects in your input dataset. You can use the labeled data to train machine learning models.

You can select your workforce from one of three providers:

- A private workforce that you create. It can include employees, contractors, and outside experts. Use a private workforce when you want the data to stay within your organization or when a specific set of skills is required.
- One or more vendors that you select from the AWS Marketplace. Vendors provide expertise in specific areas.
- The Amazon Mechanical Turk workforce. This is the largest workforce, but it should only be used for public data or data that has been stripped of any personally identifiable information.

You can also use automated data labeling to reduce the number of data objects that need to be labeled by a human. Automated data labeling uses active learning to determine if a data object can be labeled by machine or if it needs to be sent to a human worker. For more information, see Using Automated Data Labeling.

The data objects to be labeled are contained in an Amazon S3 bucket. You create a manifest file that describes the location of each object. For more information, see Using Input and Output Data.

The output can be used as the manifest file for another labeling job or as training data for your machine learning models.

Request Syntax

```json
{
    "HumanTaskConfig": {
        "AnnotationConsolidationConfig": {
            "AnnotationConsolidationLambdaArn": "string"
        },
        "MaxConcurrentTaskCount": number,
        "NumberOfHumanWorkersPerDataObject": number,
        "PreHumanTaskLambdaArn": "string",
        "PublicWorkforceTaskPrice": {
            "AmountInUsd": {
                "Cents": number,
                "Dollars": number,
                "TenthFractionsOfACent": number
            }
        },
        "TaskAvailabilityLifetimeInSeconds": number,
        "TaskDescription": "string",
        "TaskKeywords": [ "string" ],
        "TaskTimeLimitInSeconds": number,
        "TaskTitle": "string",
        "UiConfig": {
            "UiTemplateS3Uri": "string"
        },
        "WorkteamArn": "string"
    },
    "InputConfig": {
        "DataAttributes": {
            "ContentClassifiers": [ "string" ]
        },
        "DataSource": {
```
"S3DataSource": { 
  "ManifestS3Uri": "string"
}
"LabelAttributeName": "string",
"LabelCategoryConfigS3Uri": "string",
"LabelingJobAlgorithmsConfig": { 
  "InitialActiveLearningModelArn": "string",
  "LabelingJobAlgorithmSpecificationArn": "string",
  "LabelingJobResourceConfig": { 
    "VolumeKmsKeyId": "string"
  }
},
"LabelingJobName": "string",
"OutputConfig": { 
  "KmsKeyId": "string",
  "S3OutputPath": "string"
},
"RoleArn": "string",
"StoppingConditions": { 
  "MaxHumanLabeledObjectCount": number,
  "MaxPercentageOfInputDatasetLabeled": number
},
"Tags": [ 
  { 
    "Key": "string",
    "Value": "string"
  }
]

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**HumanTaskConfig (p. 56)**

Configures the labeling task and how it is presented to workers; including, but not limited to price, keywords, and batch size (task count).

Type: HumanTaskConfig (p. 544) object

Required: Yes

**InputConfig (p. 56)**

Input data for the labeling job, such as the Amazon S3 location of the data objects and the location of the manifest file that describes the data objects.

Type: LabelingJobInputConfig (p. 587) object

Required: Yes

**LabelAttributeName (p. 56)**

The attribute name to use for the label in the output manifest file. This is the key for the key/value pair formed with the label that a worker assigns to the object. The name can't end with "-metadata". If you are running a semantic segmentation labeling job, the attribute name must end with "-ref". If you are running any other kind of labeling job, the attribute name must not end with "-ref".
CreateLabelingJob

Type: String
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  
Required: Yes

LabelCategoryConfigS3Uri (p. 56)
The S3 URL of the file that defines the categories used to label the data objects.
The file is a JSON structure in the following format:

{  
"document-version": "2018-11-28"  
"labels": [  
  {  
    "label": "label 1"  
  },  
  {  
    "label": "label 2"  
  },  
  ...  
  {  
    "label": "label n"  
  }  
]  
}

Type: String
Length Constraints: Maximum length of 1024.
Pattern: ^(https|s3)://([^/]+)/?([^#]*)#  
Required: No

LabelingJobAlgorithmsConfig (p. 56)
Configures the information required to perform automated data labeling.
Type: LabelingJobAlgorithmsConfig (p. 581) object  
Required: No

LabelingJobName (p. 56)
The name of the labeling job. This name is used to identify the job in a list of labeling jobs.
Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

Required: Yes

OutputConfig (p. 56)

The location of the output data and the AWS Key Management Service key ID for the key used to encrypt the output data, if any.

Type: LabelingJobOutputConfig (p. 589) object

Required: Yes

RoleArn (p. 56)

The Amazon Resource Number (ARN) that Amazon SageMaker assumes to perform tasks on your behalf during data labeling. You must grant this role the necessary permissions so that Amazon SageMaker can successfully complete data labeling.

Type: String


Pattern: ^arn:aws[a-z\-]*:iam::\d{12}:role/?[a-zA-Z0-9-]+,+,.@\-_]+\+$

Required: Yes

StoppingConditions (p. 56)

A set of conditions for stopping the labeling job. If any of the conditions are met, the job is automatically stopped. You can use these conditions to control the cost of data labeling.

Type: LabelingJobStoppingConditions (p. 592) object

Required: No

Tags (p. 56)

An array of key/value pairs. For more information, see Using Cost Allocation Tags in the AWS Billing and Cost Management User Guide.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

Response Syntax

```json
{
    "LabelingJobArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
LabelingJobArn (p. 59)

The Amazon Resource Name (ARN) of the labeling job. You use this ARN to identify the labeling job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:labeling-job/.*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateModel
Service: Amazon SageMaker Service

Creates a model in Amazon SageMaker. In the request, you name the model and describe a primary container. For the primary container, you specify the Docker image that contains inference code, artifacts (from prior training), and a custom environment map that the inference code uses when you deploy the model for predictions.

Use this API to create a model if you want to use Amazon SageMaker hosting services or run a batch transform job.

To host your model, you create an endpoint configuration with the `CreateEndpointConfig` API, and then create an endpoint with the `CreateEndpoint` API. Amazon SageMaker then deploys all of the containers that you defined for the model in the hosting environment.

For an example that calls this method when deploying a model to Amazon SageMaker hosting services, see Deploy the Model to Amazon SageMaker Hosting Services (AWS SDK for Python (Boto 3)).

To run a batch transform using your model, you start a job with the `CreateTransformJob` API. Amazon SageMaker uses your model and your dataset to get inferences which are then saved to a specified S3 location.

In the `CreateModel` request, you must define a container with the `PrimaryContainer` parameter.

In the request, you also provide an IAM role that Amazon SageMaker can assume to access model artifacts and docker image for deployment on ML compute hosting instances or for batch transform jobs. In addition, you also use the IAM role to manage permissions the inference code needs. For example, if the inference code access any other AWS resources, you grant necessary permissions via this role.

Request Syntax

```json
{
    "Containers": [
        {
            "ContainerHostname": "string",
            "Environment": {
                "string": "string"
            },
            "Image": "string",
            "Mode": "string",
            "ModelDataUrl": "string",
            "ModelPackageName": "string"
        }
    ],
    "EnableNetworkIsolation": boolean,
    "ExecutionRoleArn": "string",
    "ModelName": "string",
    "PrimaryContainer": {
        "ContainerHostname": "string",
        "Environment": {
            "string": "string"
        },
        "Image": "string",
        "Mode": "string",
        "ModelDataUrl": "string",
        "ModelPackageName": "string"
    },
    "Tags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ]
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

Containers (p. 61)

Specifies the containers in the inference pipeline.

Type: Array of ContainerDefinition (p. 492) objects

Array Members: Maximum number of 5 items.

Required: No

EnableNetworkIsolation (p. 61)

Isolates the model container. No inbound or outbound network calls can be made to or from the model container.

Type: Boolean

Required: No

ExecutionRoleArn (p. 61)

The Amazon Resource Name (ARN) of the IAM role that Amazon SageMaker can assume to access model artifacts and docker image for deployment on ML compute instances or for batch transform jobs. Deploying on ML compute instances is part of model hosting. For more information, see Amazon SageMaker Roles.

Note

To be able to pass this role to Amazon SageMaker, the caller of this API must have the iam:PassRole permission.

Type: String


Pattern: ^arn:aws[a-zA-Z\-]*:iam::\d{12}:role/?[a-zA-Z0-9+=,.@\-_/]+$  

Required: Yes

ModelName (p. 61)

The name of the new model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9\-]*$
Required: Yes

**PrimaryContainer (p. 61)**

The location of the primary docker image containing inference code, associated artifacts, and custom environment map that the inference code uses when the model is deployed for predictions.

Type: ContainerDefinition (p. 492) object

Required: No

**Tags (p. 61)**

An array of key-value pairs. For more information, see Using Cost Allocation Tags in the *AWS Billing and Cost Management User Guide*.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

**VpcConfig (p. 61)**

A VpcConfig (p. 752) object that specifies the VPC that you want your model to connect to. Control access to and from your model container by configuring the VPC. VpcConfig is used in hosting services and in batch transform. For more information, see Protect Endpoints by Using an Amazon Virtual Private Cloud and Protect Data in Batch Transform Jobs by Using an Amazon Virtual Private Cloud.

Type: VpcConfig (p. 752) object

Required: No

**Response Syntax**

```json
{
  "ModelArn": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ModelArn (p. 63)**

The ARN of the model created in Amazon SageMaker.

Type: String


Pattern: `arn:aws[a-zA-Z\-]*:sagemaker:[a-zA-Z0-9\-]*:[0-9]{12}:model/.*`

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).
ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateModelPackage
Service: Amazon SageMaker Service

Creates a model package that you can use to create Amazon SageMaker models or list on AWS Marketplace. Buyers can subscribe to model packages listed on AWS Marketplace to create models in Amazon SageMaker.

To create a model package by specifying a Docker container that contains your inference code and the Amazon S3 location of your model artifacts, provide values for `InferenceSpecification`. To create a model from an algorithm resource that you created or subscribed to in AWS Marketplace, provide a value for `SourceAlgorithmSpecification`.

**Request Syntax**

```json
{
  "CertifyForMarketplace": boolean,
  "InferenceSpecification": {
    "Containers": [
      {
        "ContainerHostname": "string",
        "Image": "string",
        "ImageDigest": "string",
        "ModelDataUrl": "string",
        "ProductId": "string"
      }
    ],
    "SupportedContentTypes": [ "string" ],
    "SupportedRealtimeInferenceInstanceTypes": [ "string" ],
    "SupportedResponseMIMETypes": [ "string" ],
    "SupportedTransformInstanceTypes": [ "string" ]
  },
  "ModelPackageDescription": "string",
  "ModelPackageName": "string",
  "SourceAlgorithmSpecification": {
    "SourceAlgorithms": [
      {
        "AlgorithmName": "string",
        "ModelDataUrl": "string"
      }
    ]
  },
  "ValidationSpecification": {
    "ValidationProfiles": [
      {
        "ProfileName": "string",
        "TransformJobDefinition": {
          "BatchStrategy": "string",
          "Environment": {
            "string": "string"
          },
          "MaxConcurrentTransforms": number,
          "MaxPayloadInMB": number,
          "TransformInput": {
            "CompressionType": "string",
            "ContentType": "string",
            "DataSource": {
              "S3DataSource": {
                "S3DataType": "string",
                "S3Uri": "string"
              }
            },
            "SplitType": "string"
          }
        }
      }
    ]
  }"```
CreateModelPackage

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

CertifyForMarketplace (p. 65)

Whether to certify the model package for listing on AWS Marketplace.

Type: Boolean

Required: No

InferenceSpecification (p. 65)

Specifies details about inference jobs that can be run with models based on this model package, including the following:

- The Amazon ECR paths of containers that contain the inference code and model artifacts.
- The instance types that the model package supports for transform jobs and real-time endpoints used for inference.
- The input and output content formats that the model package supports for inference.

Type: InferenceSpecification (p. 569) object

Required: No

ModelPackageDescription (p. 65)

A description of the model package.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*

Required: No

ModelPackageName (p. 65)

The name of the model package. The name must have 1 to 63 characters. Valid characters are a-z, A-Z, 0-9, and - (hyphen).
Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

Required: Yes

SourceAlgorithmSpecification (p. 65)
Details about the algorithm that was used to create the model package.

Type: SourceAlgorithmSpecification (p. 685) object

Required: No

ValidationSpecification (p. 65)
Specifies configurations for one or more transform jobs that Amazon SageMaker runs to test the model package.

Type: ModelPackageValidationSpecification (p. 607) object

Required: No

Response Syntax

```json
{
  "ModelPackageArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ModelPackageArn (p. 67)
The Amazon Resource Name (ARN) of the new model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:model-package/.*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
CreateMonitoringSchedule

Service: Amazon SageMaker Service

Creates a schedule that regularly starts Amazon SageMaker Processing Jobs to monitor the data captured for an Amazon SageMaker Endpoint.

**Request Syntax**

```json
{
   "MonitoringScheduleConfig": {
      "MonitoringJobDefinition": {
         "BaselineConfig": {
            "ConstraintsResource": {
               "S3Uri": "string"
            },
            "StatisticsResource": {
               "S3Uri": "string"
            }
         },
         "Environment": {
            "string": "string"
         },
         "MonitoringAppSpecification": {
            "ContainerArguments": [ "string" ],
            "ContainerEntrypoint": [ "string" ],
            "ImageUri": "string",
            "PostAnalyticsProcessorSourceUri": "string",
            "RecordPreprocessorSourceUri": "string"
         },
         "MonitoringInputs": [
            {"EndpointInput": {"EndpointName": "string", "LocalPath": "string", "S3DataDistributionType": "string", "S3InputMode": "string"}}
         ],
         "MonitoringOutputConfig": {
            "KmsKeyId": "string",
            "MonitoringOutputs": [
               {"S3Output": {"LocalPath": "string", "S3UploadMode": "string", "S3Uri": "string"}}
            ]
         },
         "MonitoringResources": {
            "ClusterConfig": {
               "InstanceCount": number,
               "InstanceType": "string",
               "VolumeKmsKeyId": "string",
               "VolumeSizeInGB": number
            }
         },
         "NetworkConfig": {
            "EnableNetworkIsolation": boolean,
            "VpcConfig": {
               "SecurityGroupIds": [ "string" ]
            }
         }
      }
   }
}
```
CreateMonitoringSchedule

```
"Subnets": [ "string" ]
},
"RoleArn": "string",
"StoppingCondition": {
  "MaxRuntimeInSeconds": number
}
},
"ScheduleConfig": {
  "ScheduleExpression": "string"
}
},
"MonitoringScheduleName": "string",
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
]
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**MonitoringScheduleConfig (p. 69)**

The configuration object that specifies the monitoring schedule and defines the monitoring job.

Type: MonitoringScheduleConfig (p. 624) object

Required: Yes

**MonitoringScheduleName (p. 69)**

The name of the monitoring schedule. The name must be unique within an AWS Region within an AWS account.

Type: String


Pattern: ^[a-zA-Z0-9\-]*[a-zA-Z0-9]$\n
Required: Yes

**Tags (p. 69)**

(Optional) An array of key-value pairs. For more information, see Using Cost Allocation Tags in the AWS Billing and Cost Management User Guide.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

**Response Syntax**

```
{
```

70
"MonitoringScheduleArn": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**MonitoringScheduleArn (p. 70)**

The Amazon Resource Name (ARN) of the monitoring schedule.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

**ResourceLimitExceeded**

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateNotebookInstance

Service: Amazon SageMaker Service

Creates an Amazon SageMaker notebook instance. A notebook instance is a machine learning (ML) compute instance running on a Jupyter notebook.

In a CreateNotebookInstance request, specify the type of ML compute instance that you want to run. Amazon SageMaker launches the instance, installs common libraries that you can use to explore datasets for model training, and attaches an ML storage volume to the notebook instance.

Amazon SageMaker also provides a set of example notebooks. Each notebook demonstrates how to use Amazon SageMaker with a specific algorithm or with a machine learning framework.

After receiving the request, Amazon SageMaker does the following:

1. Creates a network interface in the Amazon SageMaker VPC.
2. (Option) If you specified SubnetId, Amazon SageMaker creates a network interface in your own VPC, which is inferred from the subnet ID that you provide in the input. When creating this network interface, Amazon SageMaker attaches the security group that you specified in the request to the network interface that it creates in your VPC.
3. Launches an EC2 instance of the type specified in the request in the Amazon SageMaker VPC. If you specified SubnetId of your VPC, Amazon SageMaker specifies both network interfaces when launching this instance. This enables inbound traffic from your own VPC to the notebook instance, assuming that the security groups allow it.

After creating the notebook instance, Amazon SageMaker returns its Amazon Resource Name (ARN). You can’t change the name of a notebook instance after you create it.

After Amazon SageMaker creates the notebook instance, you can connect to the Jupyter server and work in Jupyter notebooks. For example, you can write code to explore a dataset that you can use for model training, train a model, host models by creating Amazon SageMaker endpoints, and validate hosted models.

For more information, see How It Works.

Request Syntax

```json
{
  "AcceleratorTypes": [ "string" ],
  "AdditionalCodeRepositories": [ "string" ],
  "DefaultCodeRepository": "string",
  "DirectInternetAccess": "string",
  "InstanceType": "string",
  "KmsKeyId": "string",
  "LifecycleConfigName": "string",
  "NotebookInstanceName": "string",
  "RoleArn": "string",
  "RootAccess": "string",
  "SecurityGroupIds": [ "string" ],
  "SubnetId": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "VolumeSizeInGB": number
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**AcceleratorTypes (p. 72)**

A list of Elastic Inference (EI) instance types to associate with this notebook instance. Currently, only one instance type can be associated with a notebook instance. For more information, see Using Elastic Inference in Amazon SageMaker.

Type: Array of strings

Valid Values: ml.eia1.medium | ml.eia1.large | ml.eia1.xlarge | ml.eia2.medium | ml.eia2.large | ml.eia2.xlarge

Required: No

**AdditionalCodeRepositories (p. 72)**

An array of up to three Git repositories to associate with the notebook instance. These can be either the names of Git repositories stored as resources in your account, or the URL of Git repositories in AWS CodeCommit or in any other Git repository. These repositories are cloned at the same level as the default repository of your notebook instance. For more information, see Associating Git Repositories with Amazon SageMaker Notebook Instances.

Type: Array of strings

Array Members: Maximum number of 3 items.


Pattern: ^https://([^/]+)/?(.*$)|^[a-zA-Z0-9](-*[a-zA-Z0-9])* Required: No

**DefaultCodeRepository (p. 72)**

A Git repository to associate with the notebook instance as its default code repository. This can be either the name of a Git repository stored as a resource in your account, or the URL of a Git repository in AWS CodeCommit or in any other Git repository. When you open a notebook instance, it opens in the directory that contains this repository. For more information, see Associating Git Repositories with Amazon SageMaker Notebook Instances.

Type: String


Pattern: ^https://([^/]+)/?(.*$)|^[a-zA-Z0-9](-*[a-zA-Z0-9])* Required: No

**DirectInternetAccess (p. 72)**

Sets whether Amazon SageMaker provides internet access to the notebook instance. If you set this to Disabled this notebook instance will be able to access resources only in your VPC, and will not be able to connect to Amazon SageMaker training and endpoint services unless you configure a NAT Gateway in your VPC.

For more information, see Notebook Instances Are Internet-Enabled by Default. You can set the value of this parameter to Disabled only if you set a value for the SubnetId parameter.
Type: String

Valid Values: Enabled | Disabled

Required: No

**InstanceType (p. 72)**

The type of ML compute instance to launch for the notebook instance.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.m5.10xlarge | ml.m5.16xlarge | ml.c4.8xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge

Required: Yes

**KmsKeyId (p. 72)**

The Amazon Resource Name (ARN) of a AWS Key Management Service key that Amazon SageMaker uses to encrypt data on the storage volume attached to your notebook instance. The KMS key you provide must be enabled. For information, see Enabling and Disabling Keys in the AWS Key Management Service Developer Guide.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .*

Required: No

**LifecycleConfigName (p. 72)**

The name of a lifecycle configuration to associate with the notebook instance. For information about lifestyle configurations, see Step 2.1: (Optional) Customize a Notebook Instance.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  

Required: No

**NotebookInstanceName (p. 72)**

The name of the new notebook instance.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  

Required: Yes
RoleArn (p. 72)

When you send any requests to AWS resources from the notebook instance, Amazon SageMaker assumes this role to perform tasks on your behalf. You must grant this role necessary permissions so Amazon SageMaker can perform these tasks. The policy must allow the Amazon SageMaker service principal (sagemaker.amazonaws.com) permissions to assume this role. For more information, see Amazon SageMaker Roles.

**Note**
To be able to pass this role to Amazon SageMaker, the caller of this API must have the `iam:PassRole` permission.

Type: String


Pattern: `^arn:aws[a-z\-]*:iam::\d{12}:role/?[a-zA-Z0-9+=,.@\-_\//]+$`

Required: Yes

RootAccess (p. 72)

Whether root access is enabled or disabled for users of the notebook instance. The default value is `Enabled`.

**Note**
Lifecycle configurations need root access to be able to set up a notebook instance. Because of this, lifecycle configurations associated with a notebook instance always run with root access even if you disable root access for users.

Type: String

Valid Values: `Enabled` | `Disabled`

Required: No

SecurityGroupIds (p. 72)

The VPC security group IDs, in the form sg-xxxxxxxxx. The security groups must be for the same VPC as specified in the subnet.

Type: Array of strings

Array Members: Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

Required: No

SubnetId (p. 72)

The ID of the subnet in a VPC to which you would like to have a connectivity from your ML compute instance.

Type: String

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

Required: No
Tags (p. 72)

A list of tags to associate with the notebook instance. You can add tags later by using the CreateTags API.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

VolumeSizeInGB (p. 72)

The size, in GB, of the ML storage volume to attach to the notebook instance. The default value is 5 GB.

Type: Integer


Required: No

Response Syntax

```
{
  "NotebookInstanceArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NotebookInstanceArn (p. 76)

The Amazon Resource Name (ARN) of the notebook instance.

Type: String

Length Constraints: Maximum length of 256.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateNotebookInstanceLifecycleConfig

Service: Amazon SageMaker Service

Creates a lifecycle configuration that you can associate with a notebook instance. A lifecycle configuration is a collection of shell scripts that run when you create or start a notebook instance.

Each lifecycle configuration script has a limit of 16384 characters.

The value of the $PATH environment variable that is available to both scripts is /sbin:bin:/usr/sbin:/usr/bin.

View CloudWatch Logs for notebook instance lifecycle configurations in log group /aws/sagemaker/NotebookInstances in log stream [notebook-instance-name]/[LifecycleConfigHook].

Lifecycle configuration scripts cannot run for longer than 5 minutes. If a script runs for longer than 5 minutes, it fails and the notebook instance is not created or started.

For information about notebook instance lifestyle configurations, see Step 2.1: (Optional) Customize a Notebook Instance.

Request Syntax

```json
{
    "NotebookInstanceLifecycleConfigName": "string",
    "OnCreate": [  
        {  
            "Content": "string"
        }
    ],
    "OnStart": [  
        {  
            "Content": "string"
        }
    ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**NotebookInstanceLifecycleConfigName (p. 78)**

The name of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9-]*[a-zA-Z0-9]$*

Required: Yes

**OnCreate (p. 78)**

A shell script that runs only once, when you create a notebook instance. The shell script must be a base64-encoded string.
CreateNotebookInstanceLifecycleConfig

Type: Array of NotebookInstanceLifecycleHook (p. 632) objects

Array Members: Maximum number of 1 item.

Required: No

OnStart (p. 78)

A shell script that runs every time you start a notebook instance, including when you create the notebook instance. The shell script must be a base64-encoded string.

Type: Array of NotebookInstanceLifecycleHook (p. 632) objects

Array Members: Maximum number of 1 item.

Required: No

Response Syntax

```json
{
   "NotebookInstanceLifecycleConfigArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NotebookInstanceLifecycleConfigArn (p. 79)

The Amazon Resource Name (ARN) of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 256.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreatePresignedDomainUrl

Service: Amazon SageMaker Service

Creates a URL for a specified UserProfile in a Domain. When accessed in a web browser, the user will be automatically signed in to Amazon SageMaker Amazon SageMaker Studio (Studio), and granted access to all of the Apps and files associated with that Amazon Elastic File System (EFS). This operation can only be called when AuthMode equals IAM.

Request Syntax

```
{
  "DomainId": "string",
  "SessionExpirationDurationInSeconds": number,
  "UserProfileName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**DomainId (p. 81)**

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

**SessionExpirationDurationInSeconds (p. 81)**

The session expiration duration in seconds.

Type: Integer


Required: No

**UserProfileName (p. 81)**

The name of the UserProfile to sign-in as.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9]*[-][a-zA-Z0-9]*

Required: Yes

Response Syntax

```
{
}
```
"AuthorizedUrl": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AuthorizedUrl (p. 81)

The presigned URL.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreatePresignedNotebookInstanceUrl

Service: Amazon SageMaker Service

Returns a URL that you can use to connect to the Jupyter server from a notebook instance. In the Amazon SageMaker console, when you choose Open next to a notebook instance, Amazon SageMaker opens a new tab showing the Jupyter server home page from the notebook instance. The console uses this API to get the URL and show the page.

IAM authorization policies for this API are also enforced for every HTTP request and WebSocket frame that attempts to connect to the notebook instance. For example, you can restrict access to this API and to the URL that it returns to a list of IP addresses that you specify. Use the NotIpAddress condition operator and the aws:SourceIP condition context key to specify the list of IP addresses that you want to have access to the notebook instance. For more information, see Limit Access to a Notebook Instance by IP Address.

**Note**
The URL that you get from a call to CreatePresignedNotebookInstanceUrl (p. 83) is valid only for 5 minutes. If you try to use the URL after the 5-minute limit expires, you are directed to the AWS console sign-in page.

**Request Syntax**

```json
{
   "NotebookInstanceName": "string",
   "SessionExpirationDurationInSeconds": number
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**NotebookInstanceName (p. 83)**

The name of the notebook instance.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*`

Required: Yes

**SessionExpirationDurationInSeconds (p. 83)**

The duration of the session, in seconds. The default is 12 hours.

Type: Integer


Required: No

**Response Syntax**

```json
{
}
```
"AuthorizedUrl": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**AuthorizedUrl (p. 83)**

A JSON object that contains the URL string.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateProcessingJob
Service: Amazon SageMaker Service

Creates a processing job.

Request Syntax

```json
{
  "AppSpecification": {
    "ContainerArguments": [ "string" ],
    "ContainerEntrypoint": [ "string" ],
    "ImageUri": "string"
  },
  "Environment": {
    "string": "string"
  },
  "ExperimentConfig": {
    "ExperimentName": "string",
    "TrialComponentDisplayName": "string",
    "TrialName": "string"
  },
  "NetworkConfig": {
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
      "SecurityGroupIds": [ "string" ],
      "Subnets": [ "string" ]
    }
  },
  "ProcessingInputs": [ {
    "InputName": "string",
    "S3Input": {
      "LocalPath": "string",
      "S3CompressionType": "string",
      "S3DataDistributionType": "string",
      "S3DataType": "string",
      "S3InputMode": "string",
      "S3Uri": "string"
    }
  } ],
  "ProcessingJobName": "string",
  "ProcessingOutputConfig": {
    "KmsKeyId": "string",
    "Outputs": [ {
      "OutputName": "string",
      "S3Output": {
        "LocalPath": "string",
        "S3UploadMode": "string",
        "S3Uri": "string"
      }
    } ]
  },
  "ProcessingResources": {
    "ClusterConfig": {
      "InstanceCount": number,
      "InstanceType": "string",
      "VolumeKmsKeyId": "string",
      "VolumeSizeInGB": number
    }
  }
}
```
"RoleArn": "string",
"StoppingCondition": {
  "MaxRuntimeInSeconds": number
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
]

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

AppSpecification (p. 85)

Configures the processing job to run a specified Docker container image.

Type: AppSpecification (p. 461) object

Required: Yes

Environment (p. 85)

Sets the environment variables in the Docker container.

Type: String to string map

Key Length Constraints: Maximum length of 256.

Key Pattern: [a-zA-Z_][a-zA-Z0-9_]*

Value Length Constraints: Maximum length of 256.

Value Pattern: [\S\s]*

Required: No

ExperimentConfig (p. 85)

Configuration for the experiment.

Type: ExperimentConfig (p. 520) object

Required: No

NetworkConfig (p. 85)

Networking options for a processing job.

Type: NetworkConfig (p. 630) object

Required: No

ProcessingInputs (p. 85)

For each input, data is downloaded from S3 into the processing container before the processing job begins running if "S3InputMode" is set to File.

Type: Array of ProcessingInput (p. 647) objects
Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: No

**ProcessingJobName (p. 85)**

The name of the processing job. The name must be unique within an AWS Region in the AWS account.

Type: String


Pattern: \^[a-zA-Z0-9\-\*][a-zA-Z0-9\-\*]*

Required: Yes

**ProcessingOutputConfig (p. 85)**

Output configuration for the processing job.

Type: ProcessingOutputConfig (p. 651) object

Required: No

**ProcessingResources (p. 85)**

Identifies the resources, ML compute instances, and ML storage volumes to deploy for a processing job. In distributed training, you specify more than one instance.

Type: ProcessingResources (p. 652) object

Required: Yes

**RoleArn (p. 85)**

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String


Pattern: ^arn:aws[a-z\-]*:iam::\d{12}:role/?[a-zA-Z0-9\-_]+,.@\-/]+\$

Required: Yes

**StoppingCondition (p. 85)**

The time limit for how long the processing job is allowed to run.

Type: ProcessingStoppingCondition (p. 656) object

Required: No

**Tags (p. 85)**

(Optional) An array of key-value pairs. For more information, see Using Cost Allocation Tags in the AWS Billing and Cost Management User Guide.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No
Response Syntax

```json
{
   "ProcessingJobArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ProcessingJobArn (p. 88)**

The Amazon Resource Name (ARN) of the processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:processing-job/.*`

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

**ResourceLimitExceeded**

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

**ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateTrainingJob

Service: Amazon SageMaker Service

Starts a model training job. After training completes, Amazon SageMaker saves the resulting model artifacts to an Amazon S3 location that you specify.

If you choose to host your model using Amazon SageMaker hosting services, you can use the resulting model artifacts as part of the model. You can also use the artifacts in a machine learning service other than Amazon SageMaker, provided that you know how to use them for inferences.

In the request body, you provide the following:

- **AlgorithmSpecification** - Identifies the training algorithm to use.
- **HyperParameters** - Specify these algorithm-specific parameters to enable the estimation of model parameters during training. Hyperparameters can be tuned to optimize this learning process. For a list of hyperparameters for each training algorithm provided by Amazon SageMaker, see Algorithms.
- **InputDataConfig** - Describes the training dataset and the Amazon S3, EFS, or FSx location where it is stored.
- **OutputDataConfig** - Identifies the Amazon S3 bucket where you want Amazon SageMaker to save the results of model training.
- **ResourceConfig** - Identifies the resources, ML compute instances, and ML storage volumes to deploy for model training. In distributed training, you specify more than one instance.
- **EnableManagedSpotTraining** - Optimize the cost of training machine learning models by up to 80% by using Amazon EC2 Spot instances. For more information, see Managed Spot Training.
- **RoleARN** - The Amazon Resource Number (ARN) that Amazon SageMaker assumes to perform tasks on your behalf during model training. You must grant this role the necessary permissions so that Amazon SageMaker can successfully complete model training.
- **StoppingCondition** - To help cap training costs, use MaxRuntimeInSeconds to set a time limit for training. Use MaxWaitTimeInSeconds to specify how long you are willing to wait for a managed spot training job to complete.

For more information about Amazon SageMaker, see How It Works.

Request Syntax

```json
{
   "AlgorithmSpecification": {
      "AlgorithmName": "string",
      "EnableSageMakerMetricsTimeSeries": boolean,
      "MetricDefinitions": [
         {
            "Name": "string",
            "Regex": "string"
         }
      ],
      "TrainingImage": "string",
      "TrainingInputMode": "string"
   },
   "CheckpointConfig": {
      "LocalPath": "string",
      "S3Uri": "string"
   },
   "DebugHookConfig": {
      "CollectionConfigurations": [
         {
            "CollectionName": "string"
         }
      ]
   }
}
```
"CollectionParameters": {
  "string" : "string"
}
],
"HookParameters": {
  "string" : "string"
},
"LocalPath": "string",
"S3OutputPath": "string"
},
"DebugRuleConfigurations": [
{
  "InstanceType": "string",
  "LocalPath": "string",
  "RuleConfigurationName": "string",
  "RuleEvaluatorImage": "string",
  "RuleParameters": {
    "string" : "string"
  },
  "S3OutputPath": "string",
  "VolumeSizeInGB": number
}
],
"EnableInterContainerTrafficEncryption": boolean,
"EnableManagedSpotTraining": boolean,
"EnableNetworkIsolation": boolean,
"ExperimentConfig": {
  "ExperimentName": "string",
  "TrialComponentDisplayName": "string",
  "TrialName": "string"
},
"HyperParameters": {
  "string" : "string"
},
"InputDataConfig": [
{
  "ChannelName": "string",
  "CompressionType": "string",
  "ContentType": "string",
  "DataSource": {
    "FileSystemDataSource": {
      "DirectoryPath": "string",
      "FileSystemAccessMode": "string",
      "FileSystemId": "string",
      "FileSystemType": "string"
    },
    "S3DataSource": {
      "AttributeName": [ "string" ],
      "S3DataDistributionType": "string",
      "S3DataType": "string",
      "S3Uri": "string"
    }
  },
  "InputMode": "string",
  "RecordWrapperType": "string",
  "ShuffleConfig": {
    "Seed": number
  }
}
],
"OutputDataConfig": {
  "KmsKeyId": "string",
  "S3OutputPath": "string"
},
"ResourceConfig": {


CreateTrainingJob

```
"InstanceCount": number,
"InstanceType": "string",
"VolumeKmsKeyId": "string",
"VolumeSizeInGB": number
},
"RoleArn": "string",
"StoppingCondition": {
  "MaxRuntimeInSeconds": number,
  "MaxWaitTimeInSeconds": number
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
],
"TensorBoardOutputConfig": {
  "LocalPath": "string",
  "S3OutputPath": "string"
},
"TrainingJobName": "string",
"VpcConfig": {
  "SecurityGroupIds": [ "string" ],
  "Subnets": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**AlgorithmSpecification (p. 90)**

The registry path of the Docker image that contains the training algorithm and algorithm-specific metadata, including the input mode. For more information about algorithms provided by Amazon SageMaker, see Algorithms. For information about providing your own algorithms, see Using Your Own Algorithms with Amazon SageMaker.

Type: AlgorithmSpecification (p. 444) object

Required: Yes

**CheckpointConfig (p. 90)**

Contains information about the output location for managed spot training checkpoint data.

Type: CheckpointConfig (p. 485) object

Required: No

**DebugHookConfig (p. 90)**

Configuration information for the debug hook parameters, collection configuration, and storage paths.

Type: DebugHookConfig (p. 503) object

Required: No

**DebugRuleConfigurations (p. 90)**

Configuration information for debugging rules.
CreateTrainingJob

Type: Array of DebugRuleConfiguration (p. 505) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

EnableInterContainerTrafficEncryption (p. 90)

To encrypt all communications between ML compute instances in distributed training, choose True. Encryption provides greater security for distributed training, but training might take longer. How long it takes depends on the amount of communication between compute instances, especially if you use a deep learning algorithm in distributed training. For more information, see Protect Communications Between ML Compute Instances in a Distributed Training Job.

Type: Boolean

Required: No

EnableManagedSpotTraining (p. 90)

To train models using managed spot training, choose True. Managed spot training provides a fully managed and scalable infrastructure for training machine learning models. This option is useful when training jobs can be interrupted and when there is flexibility when the training job is run.

The complete and intermediate results of jobs are stored in an Amazon S3 bucket, and can be used as a starting point to train models incrementally. Amazon SageMaker provides metrics and logs in CloudWatch. They can be used to see when managed spot training jobs are running, interrupted, resumed, or completed.

Type: Boolean

Required: No

EnableNetworkIsolation (p. 90)

Isolates the training container. No inbound or outbound network calls can be made, except for calls between peers within a training cluster for distributed training. If you enable network isolation for training jobs that are configured to use a VPC, Amazon SageMaker downloads and uploads customer data and model artifacts through the specified VPC, but the training container does not have network access.

Type: Boolean

Required: No

ExperimentConfig (p. 90)

Configuration for the experiment.

Type: ExperimentConfig (p. 520) object

Required: No

HyperParameters (p. 90)

Algorithm-specific parameters that influence the quality of the model. You set hyperparameters before you start the learning process. For a list of hyperparameters for each training algorithm provided by Amazon SageMaker, see Algorithms.

You can specify a maximum of 100 hyperparameters. Each hyperparameter is a key-value pair. Each key and value is limited to 256 characters, as specified by the Length Constraint.

Type: String to string map

Key Length Constraints: Maximum length of 256.
Key Pattern: .*
Value Length Constraints: Maximum length of 256.
Value Pattern: .*
Required: No

**InputDataConfig (p. 90)**

An array of `Channel` objects. Each channel is a named input source. `InputDataConfig` describes the input data and its location.

Algorithms can accept input data from one or more channels. For example, an algorithm might have two channels of input data, `training_data` and `validation_data`. The configuration for each channel provides the S3, EFS, or FSx location where the input data is stored. It also provides information about the stored data: the MIME type, compression method, and whether the data is wrapped in RecordIO format.

Depending on the input mode that the algorithm supports, Amazon SageMaker either copies input data files from an S3 bucket to a local directory in the Docker container, or makes it available as input streams. For example, if you specify an EFS location, input data files will be made available as input streams. They do not need to be downloaded.

Type: Array of `Channel` (p. 481) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

**OutputDataConfig (p. 90)**

Specifies the path to the S3 location where you want to store model artifacts. Amazon SageMaker creates subfolders for the artifacts.

Type: `OutputDataConfig` (p. 639) object

Required: Yes

**ResourceConfig (p. 90)**

The resources, including the ML compute instances and ML storage volumes, to use for model training.

ML storage volumes store model artifacts and incremental states. Training algorithms might also use ML storage volumes for scratch space. If you want Amazon SageMaker to use the ML storage volume to store the training data, choose **File** as the `TrainingInputMode` in the algorithm specification. For distributed training algorithms, specify an instance count greater than 1.

Type: `ResourceConfig` (p. 669) object

Required: Yes

**RoleArn (p. 90)**

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

During model training, Amazon SageMaker needs your permission to read input data from an S3 bucket, download a Docker image that contains training code, write model artifacts to an S3 bucket, write logs to Amazon CloudWatch Logs, and publish metrics to Amazon CloudWatch. You grant permissions for all of these tasks to an IAM role. For more information, see Amazon SageMaker Roles.
Note

To be able to pass this role to Amazon SageMaker, the caller of this API must have the `iam:PassRole` permission.

Type: String


Pattern: `^arn:aws[a-z\-]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@\-_/]+$`

Required: Yes

StoppingCondition (p. 90)

Specifies a limit to how long a model training job can run. When the job reaches the time limit, Amazon SageMaker ends the training job. Use this API to cap model training costs.

To stop a job, Amazon SageMaker sends the algorithm the `SIGTERM` signal, which delays job termination for 120 seconds. Algorithms can use this 120-second window to save the model artifacts, so the results of training are not lost.

Type: `StoppingCondition (p. 687)` object

Required: Yes

Tags (p. 90)

An array of key-value pairs. For more information, see Using Cost Allocation Tags in the AWS Billing and Cost Management User Guide.

Type: Array of `Tag (p. 691)` objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

TensorBoardOutputConfig (p. 90)

Configuration of storage locations for TensorBoard output.

Type: `TensorBoardOutputConfig (p. 693)` object

Required: No

TrainingJobName (p. 90)

The name of the training job. The name must be unique within an AWS Region in an AWS account.

Type: String


Pattern: `^[a-zA-Z0-9-]*[a-zA-Z0-9]+$`

Required: Yes

VpcConfig (p. 90)

A `VpcConfig (p. 752)` object that specifies the VPC that you want your training job to connect to. Control access to and from your training container by configuring the VPC. For more information, see Protect Training Jobs by Using an Amazon Virtual Private Cloud.

Type: `VpcConfig (p. 752)` object

Required: No
Response Syntax

```json
{
   "TrainingJobArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**TrainingJobArn (p. 96)**

The Amazon Resource Name (ARN) of the training job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:training-job/.*`

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

**ResourceLimitExceeded**

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

**ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
CreateTransformJob

Service: Amazon SageMaker Service

Starts a transform job. A transform job uses a trained model to get inferences on a dataset and saves these results to an Amazon S3 location that you specify.

To perform batch transformations, you create a transform job and use the data that you have readily available.

In the request body, you provide the following:

- **TransformJobName** - Identifies the transform job. The name must be unique within an AWS Region in an AWS account.
- **ModelName** - Identifies the model to use. **ModelName** must be the name of an existing Amazon SageMaker model in the same AWS Region and AWS account. For information on creating a model, see `CreateModel` (p. 61).
- **TransformInput** - Describes the dataset to be transformed and the Amazon S3 location where it is stored.
- **TransformOutput** - Identifies the Amazon S3 location where you want Amazon SageMaker to save the results from the transform job.
- **TransformResources** - Identifies the ML compute instances for the transform job.

For more information about how batch transformation works, see `Batch Transform`.

Request Syntax

```json
{
   "BatchStrategy": "string",
   "DataProcessing": {
      "InputFilter": "string",
      "JoinSource": "string",
      "OutputFilter": "string"
   },
   "Environment": {
      "string": "string"
   },
   "ExperimentConfig": {
      "ExperimentName": "string",
      "TrialComponentDisplayName": "string",
      "TrialName": "string"
   },
   "MaxConcurrentTransforms": number,
   "MaxPayloadInMB": number,
   "ModelName": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "TransformInput": {
      "CompressionType": "string",
      "ContentType": "string",
      "DataSource": {
         "S3DataSource": {
            "S3DataType": "string",
            "S3Uri": "string"
         }
      }
   }
}
```
"SplitType": "string",
"TransformJobName": "string",
"TransformOutput": {
  "Accept": "string",
  "AssembleWith": "string",
  "KmsKeyId": "string",
  "S3OutputPath": "string"
},
"TransformResources": {
  "InstanceCount": number,
  "InstanceType": "string",
  "VolumeKmsKeyId": "string"
}
}

### Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**BatchStrategy (p. 98)**

Specifies the number of records to include in a mini-batch for an HTTP inference request. A *record* is a single unit of input data that inference can be made on. For example, a single line in a CSV file is a record.

To enable the batch strategy, you must set the `SplitType` property to Line, RecordIO, or TFRecord.

To use only one record when making an HTTP invocation request to a container, set `BatchStrategy` to SingleRecord and `SplitType` to Line.

To fit as many records in a mini-batch as can fit within the `MaxPayloadInMB` limit, set `BatchStrategy` to MultiRecord and `SplitType` to Line.

Type: String

Valid Values: MultiRecord | SingleRecord

Required: No

**DataProcessing (p. 98)**

The data structure used to specify the data to be used for inference in a batch transform job and to associate the data that is relevant to the prediction results in the output. The input filter provided allows you to exclude input data that is not needed for inference in a batch transform job. The output filter provided allows you to include input data relevant to interpreting the predictions in the output from the job. For more information, see Associate Prediction Results with their Corresponding Input Records.

Type: DataProcessing (p. 500) object

Required: No

**Environment (p. 98)**

The environment variables to set in the Docker container. We support up to 16 key and values entries in the map.

Type: String to string map
Key Length Constraints: Maximum length of 1024.

Key Pattern: [a-zA-Z_][a-zA-Z0-9_]*

Value Length Constraints: Maximum length of 10240.

Value Pattern: [\S\s]*

Required: No

ExperimentConfig (p. 98)

Configuration for the experiment.

Type: ExperimentConfig (p. 520) object

Required: No

MaxConcurrentTransforms (p. 98)

The maximum number of parallel requests that can be sent to each instance in a transform job. If MaxConcurrentTransforms is set to 0 or left unset, Amazon SageMaker checks the optional execution-parameters to determine the settings for your chosen algorithm. If the execution-parameters endpoint is not enabled, the default value is 1. For more information on execution-parameters, see How Containers Serve Requests. For built-in algorithms, you don't need to set a value for MaxConcurrentTransforms.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

MaxPayloadInMB (p. 98)

The maximum allowed size of the payload, in MB. A payload is the data portion of a record (without metadata). The value in MaxPayloadInMB must be greater than, or equal to, the size of a single record. To estimate the size of a record in MB, divide the size of your dataset by the number of records. To ensure that the records fit within the maximum payload size, we recommend using a slightly larger value. The default value is 6 MB.

For cases where the payload might be arbitrarily large and is transmitted using HTTP chunked encoding, set the value to 0. This feature works only in supported algorithms. Currently, Amazon SageMaker built-in algorithms do not support HTTP chunked encoding.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

ModelName (p. 98)

The name of the model that you want to use for the transform job. ModelName must be the name of an existing Amazon SageMaker model within an AWS Region in an AWS account.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9\-]*[a-zA-Z0-9\-]+$

Required: Yes
Tags (p. 98)
(Optional) An array of key-value pairs. For more information, see Using Cost Allocation Tags in the AWS Billing and Cost Management User Guide.
Type: Array of Tag (p. 691) objects
Array Members: Minimum number of 0 items. Maximum number of 50 items.
Required: No

TransformInput (p. 98)
Describes the input source and the way the transform job consumes it.
Type: TransformInput (p. 710) object
Required: Yes

TransformJobName (p. 98)
The name of the transform job. The name must be unique within an AWS Region in an AWS account.
Type: String
Pattern: ^[a-zA-Z0-9-]*[a-zA-Z0-9]*$
Required: Yes

TransformOutput (p. 98)
Describes the results of the transform job.
Type: TransformOutput (p. 716) object
Required: Yes

TransformResources (p. 98)
Describes the resources, including ML instance types and ML instance count, to use for the transform job.
Type: TransformResources (p. 718) object
Required: Yes

Response Syntax

```json
{
  "TransformJobArn": "string"
}
```

Response Elements
If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

TransformJobArn (p. 101)
The Amazon Resource Name (ARN) of the transform job.
CreateTransformJob

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:transform-job/.*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

ResourceNotFound

Resource being accessed is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateTrial

Service: Amazon SageMaker Service

Creates an Amazon SageMaker trial. A trial is a set of steps called trial components that produce a machine learning model. A trial is part of a single Amazon SageMaker experiment.

When you use Amazon SageMaker Studio or the Amazon SageMaker Python SDK, all experiments, trials, and trial components are automatically tracked, logged, and indexed. When you use the AWS SDK for Python (Boto), you must use the logging APIs provided by the SDK.

You can add tags to a trial and then use the Search (p. 363) API to search for the tags.

To get a list of all your trials, call the ListTrials (p. 352) API. To view a trial's properties, call the DescribeTrial (p. 243) API. To create a trial component, call the CreateTrialComponent (p. 106) API.

Request Syntax

```
{
  "DisplayName": "string",
  "ExperimentName": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "TrialName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**DisplayName (p. 103)**

The name of the trial as displayed. The name doesn't need to be unique. If DisplayName isn't specified, TrialName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9]-*[a-zA-Z0-9]*

Required: No

**ExperimentName (p. 103)**

The name of the experiment to associate the trial with.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9]-*[a-zA-Z0-9]*

Required: Yes
Tags (p. 103)

A list of tags to associate with the trial. You can use Search (p. 363) API to search on the tags.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

TrialName (p. 103)

The name of the trial. The name must be unique in your AWS account and is not case-sensitive.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9]-*[a-zA-Z0-9]*

Required: Yes

Response Syntax

```json
{
   "TrialArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

TrialArn (p. 104)

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial/.*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

ResourceNotFound

Resource being access is not found.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateTrialComponent

Service: Amazon SageMaker Service

Creates a trial component, which is a stage of a machine learning trial. A trial is composed of one or more trial components. A trial component can be used in multiple trials.

Trial components include pre-processing jobs, training jobs, and batch transform jobs.

When you use Amazon SageMaker Studio or the Amazon SageMaker Python SDK, all experiments, trials, and trial components are automatically tracked, logged, and indexed. When you use the AWS SDK for Python (Boto), you must use the logging APIs provided by the SDK.

You can add tags to a trial component and then use the Search (p. 363) API to search for the tags.

**Note**
CreateTrialComponent can only be invoked from within an Amazon SageMaker managed environment. This includes Amazon SageMaker training jobs, processing jobs, transform jobs, and Amazon SageMaker notebooks. A call to CreateTrialComponent from outside one of these environments results in an error.

**Request Syntax**

```json
{
  "DisplayName": "string",
  "EndTime": number,
  "InputArtifacts": {
    "string": {
      "MediaType": "string",
      "Value": "string"
    }
  },
  "OutputArtifacts": {
    "string": {
      "MediaType": "string",
      "Value": "string"
    }
  },
  "Parameters": {
    "string": {
      "NumberValue": number,
      "StringValue": "string"
    }
  },
  "StartTime": number,
  "Status": {
    "Message": "string",
    "PrimaryStatus": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "TrialComponentName": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 757).
The request accepts the following data in JSON format.

**DisplayName (p. 106)**

The name of the component as displayed. The name doesn't need to be unique. If `DisplayName` isn't specified, `TrialComponentName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]*)_`  

Required: No

**EndTime (p. 106)**

When the component ended.

Type: Timestamp

Required: No

**InputArtifacts (p. 106)**

The input artifacts for the component. Examples of input artifacts are datasets, algorithms, hyperparameters, source code, and instance types.

Type: String to `TrialComponentArtifact (p. 727)` object map

Key Length Constraints: Maximum length of 64.

Key Pattern: `.*`

Required: No

**OutputArtifacts (p. 106)**

The output artifacts for the component. Examples of output artifacts are metrics, snapshots, logs, and images.

Type: String to `TrialComponentArtifact (p. 727)` object map

Key Length Constraints: Maximum length of 64.

Key Pattern: `.*`

Required: No

**Parameters (p. 106)**

The hyperparameters for the component.

Type: String to `TrialComponentParameterValue (p. 730)` object map

Key Length Constraints: Maximum length of 256.

Key Pattern: `.*`

Required: No

**StartTime (p. 106)**

When the component started.

Type: Timestamp
CreateTrialComponent

Required: No

**Status (p. 106)**

The status of the component. States include:

- InProgress
- Completed
- Failed

Type: **TrialComponentStatus (p. 735) object**

Required: No

**Tags (p. 106)**

A list of tags to associate with the component. You can use **Search (p. 363) API** to search on the tags.

Type: Array of **Tag (p. 691) objects**

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

**TrialComponentName (p. 106)**

The name of the component. The name must be unique in your AWS account and is not case-sensitive.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

**Response Syntax**

```
{
  "TrialComponentArn": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**TrialComponentArn (p. 108)**

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-zA-Z0-9\-]*:[0-9]{12}:experiment-trial-component/.*`
Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateUserProfile

Service: Amazon SageMaker Service

Creates a new user profile. A user profile represents a single user within a Domain, and is the main way to reference a "person" for the purposes of sharing, reporting and other user-oriented features. This entity is created during on-boarding. If an administrator invites a person by email or imports them from SSO, a new UserProfile is automatically created. This entity is the primary holder of settings for an individual user and has a reference to the user's private Amazon Elastic File System (EFS) home directory.

Request Syntax

```json
{
    "DomainId": "string",
    "SingleSignOnUserIdentifier": "string",
    "SingleSignOnUserValue": "string",
    "Tags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ],
    "UserProfileName": "string",
    "UserSettings": {
        "ExecutionRole": "string",
        "JupyterServerAppSettings": {
            "DefaultResourceSpec": {
                "EnvironmentArn": "string",
                "InstanceType": "string"
            }
        },
        "KernelGatewayAppSettings": {
            "DefaultResourceSpec": {
                "EnvironmentArn": "string",
                "InstanceType": "string"
            }
        },
        "SecurityGroups": [ "string" ],
        "SharingSettings": {
            "NotebookOutputOption": "string",
            "S3KmsKeyId": "string",
            "S3OutputPath": "string"
        },
        "TensorBoardAppSettings": {
            "DefaultResourceSpec": {
                "EnvironmentArn": "string",
                "InstanceType": "string"
            }
        }
    }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**DomainId (p. 110)**

The ID of the associated Domain.
Type: String
Length Constraints: Maximum length of 63.
Required: Yes

SingleSignOnUserIdentifier (p. 110)
A specifier for the type of value specified in SingleSignOnUserValue. Currently, the only supported value is "UserName". If the Domain's AuthMode is SSO, this field is required. If the Domain's AuthMode is not SSO, this field cannot be specified.
Type: String
Pattern: UserName
Required: No

SingleSignOnUserValue (p. 110)
The username of the associated AWS Single Sign-On User for this UserProfile. If the Domain's AuthMode is SSO, this field is required, and must match a valid username of a user in your directory. If the Domain's AuthMode is not SSO, this field cannot be specified.
Type: String
Length Constraints: Maximum length of 256.
Required: No

Tags (p. 110)
Each tag consists of a key and an optional value. Tag keys must be unique per resource.
Type: Array of Tag (p. 691) objects
Array Members: Minimum number of 0 items. Maximum number of 50 items.
Required: No

UserProfileName (p. 110)
A name for the UserProfile.
Type: String
Length Constraints: Maximum length of 63.
Pattern: ^[a-zA-Z0-9](\-*[a-zA-Z0-9])*$ 
Required: Yes

UserSettings (p. 110)
A collection of settings.
Type: UserSettings (p. 749) object
Required: No

Response Syntax
{
}
"UserProfileArn": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**UserProfileArn (p. 111)**

The user profile Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:user-profile/.*

Errors

For information about the errors that are common to all actions, see [Common Errors (p. 759)](#).

**ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

**ResourceLimitExceeded**

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateWorkteam
Service: Amazon SageMaker Service

Creates a new work team for labeling your data. A work team is defined by one or more Amazon Cognito user pools. You must first create the user pools before you can create a work team.

You cannot create more than 25 work teams in an account and region.

Request Syntax

```json
{
   "Description": "string",
   "MemberDefinitions": [
      {
         "CognitoMemberDefinition": {
            "ClientId": "string",
            "UserGroup": "string",
            "UserPool": "string"
         }
      }
   ],
   "NotificationConfiguration": {
      "NotificationTopicArn": "string"
   },
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "WorkteamName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

Description (p. 113)

A description of the work team.

Type: String


Pattern: .+

Required: Yes

MemberDefinitions (p. 113)

A list of MemberDefinition objects that contains objects that identify the Amazon Cognito user pool that makes up the work team. For more information, see Amazon Cognito User Pools.

All of the CognitoMemberDefinition objects that make up the member definition must have the same ClientId and UserPool values.

Type: Array of MemberDefinition (p. 596) objects
Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: Yes

NotificationConfiguration (p. 113)

Configures notification of workers regarding available or expiring work items.

Type: NotificationConfiguration (p. 636) object

Required: No

Tags (p. 113)

An array of key-value pairs.

For more information, see Resource Tag and Using Cost Allocation Tags in the AWS Billing and Cost Management User Guide.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

WorkteamName (p. 113)

The name of the work team. Use this name to identify the work team.

Type: String


Pattern: ^[a-zA-Z0-9\-\]*[a-zA-Z0-9\-]*$  

Required: Yes

Response Syntax

```json
{
    "WorkteamArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

WorkteamArn (p. 114)

The Amazon Resource Name (ARN) of the work team. You can use this ARN to identify the work team.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:workteam/.*
Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteAlgorithm
Service: Amazon SageMaker Service
Removes the specified algorithm from your account.

Request Syntax

```
{
   "AlgorithmName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

AlgorithmName (p. 116)

The name of the algorithm to delete.

- Type: String
- Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$
- Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteApp
Service: Amazon SageMaker Service
Used to stop and delete an app.

Request Syntax

```json
{
   "AppName": "string",
   "AppType": "string",
   "DomainId": "string",
   "UserProfileName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

AppName (p. 117)

The name of the app.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*

Required: Yes

AppType (p. 117)

The type of app.

Type: String

Valid Values: JupyterServer | KernelGateway | TensorBoard

Required: Yes

DomainId (p. 117)

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

UserProfileName (p. 117)

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*
Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

ResourceNotFound

Resource being accessed is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteCodeRepository
Service: Amazon SageMaker Service

Deletes the specified Git repository from your account.

Request Syntax

```
{
  "CodeRepositoryName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

CodeRepositoryName (p. 119)

The name of the Git repository to delete.

Type: String


Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteDomain

Service: Amazon SageMaker Service

Used to delete a domain. If you on-boarded with IAM mode, you will need to delete your domain to on-board again using SSO. Use with caution. All of the members of the domain will lose access to their EFS volume, including data, notebooks, and other artifacts.

Request Syntax

```json
{
    "DomainId": "string",
    "RetentionPolicy": {
        "HomeEfsFileSystem": "string"
    }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**DomainId (p. 120)**

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

**RetentionPolicy (p. 120)**

The retention policy for this domain, which specifies which resources will be retained after the Domain is deleted. By default, all resources are retained (not automatically deleted).

Type: RetentionPolicy (p. 673) object

Required: No

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

**ResourceNotFound**

Resource being access is not found.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteEndpoint

Service: Amazon SageMaker Service

Deletes an endpoint. Amazon SageMaker frees up all of the resources that were deployed when the endpoint was created.

Amazon SageMaker retires any custom KMS key grants associated with the endpoint, meaning you don't need to use the RevokeGrant API call.

Request Syntax

```json
{
    "EndpointName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**EndpointName (p. 122)**

The name of the endpoint that you want to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`  

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface  
- AWS SDK for .NET  
- AWS SDK for C++  
- AWS SDK for Go  
- AWS SDK for Java  
- AWS SDK for JavaScript  
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteEndpointConfig
Service: Amazon SageMaker Service

Deletes an endpoint configuration. The `DeleteEndpointConfig` API deletes only the specified configuration. It does not delete endpoints created using the configuration.

Request Syntax

```
{
   "EndpointConfigName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**EndpointConfigName (p. 124)**

- The name of the endpoint configuration that you want to delete.

  Type: String

  Length Constraints: Maximum length of 63.

  Pattern: `^[a-zA-Z0-9-]*[a-zA-Z0-9-]*`  

  Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteExperiment

Service: Amazon SageMaker Service

Deletes an Amazon SageMaker experiment. All trials associated with the experiment must be deleted first. Use the ListTrials (p. 352) API to get a list of the trials associated with the experiment.

Request Syntax

```json
{
   "ExperimentName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

ExperimentName (p. 126)

The name of the experiment to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9\-]*[a-zA-Z0-9]$*

Required: Yes

Response Syntax

```json
{
   "ExperimentArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ExperimentArn (p. 126)

The Amazon Resource Name (ARN) of the experiment that is being deleted.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment/.*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).
ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteFlowDefinition

Service: Amazon SageMaker Service

Deletes the specified flow definition.

Request Syntax

```
{
  "FlowDefinitionName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**FlowDefinitionName (p. 128)**

The name of the flow definition you are deleting.

Type: String


Pattern: ^[a-z0-9](-*[a-z0-9])*

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteModel

Service: Amazon SageMaker Service

Deletes a model. The `DeleteModel` API deletes only the model entry that was created in Amazon SageMaker when you called the `CreateModel` API. It does not delete model artifacts, inference code, or the IAM role that you specified when creating the model.

Request Syntax

```
{
  "ModelName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**ModelName (p. 130)**

The name of the model to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9-]*[a-zA-Z0-9](-*[a-zA-Z0-9]*)*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

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DeleteModelPackage

Service: Amazon SageMaker Service

Deletes a model package.

A model package is used to create Amazon SageMaker models or list on AWS Marketplace. Buyers can subscribe to model packages listed on AWS Marketplace to create models in Amazon SageMaker.

Request Syntax

```
{
    "ModelPackageName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**ModelPackageName (p. 132)**

The name of the model package. The name must have 1 to 63 characters. Valid characters are a-z, A-Z, 0-9, and - (hyphen).

Type: String


Pattern: `^[a-zA-Z0-9][-]*[a-zA-Z0-9]*$`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteMonitoringSchedule
Service: Amazon SageMaker Service

Deletes a monitoring schedule. Also stops the schedule had not already been stopped. This does not delete the job execution history of the monitoring schedule.

Request Syntax

{
   "MonitoringScheduleName": "string"
}

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

MonitoringScheduleName (p. 134)

The name of the monitoring schedule to delete.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFoundException

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteNotebookInstance

Service: Amazon SageMaker Service

Deletes an Amazon SageMaker notebook instance. Before you can delete a notebook instance, you must call the StopNotebookInstance API.

**Important**
When you delete a notebook instance, you lose all of your data. Amazon SageMaker removes the ML compute instance, and deletes the ML storage volume and the network interface associated with the notebook instance.

**Request Syntax**

```
{
  "NotebookInstanceName": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**NotebookInstanceName (p. 136)**

The name of the Amazon SageMaker notebook instance to delete.

- Type: String
- Length Constraints: Maximum length of 63.
- Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`
- Required: Yes

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteNotebookInstanceLifecycleConfig

Service: Amazon SageMaker Service

Deletes a notebook instance lifecycle configuration.

Request Syntax

```json
{
  "NotebookInstanceLifecycleConfigName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**NotebookInstanceLifecycleConfigName (p. 138)**

- The name of the lifecycle configuration to delete.
- Type: String
- Length Constraints: Maximum length of 63.
- Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`  
- Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteTags
Service: Amazon SageMaker Service

Deletes the specified tags from an Amazon SageMaker resource.

To list a resource's tags, use the ListTags API.

**Note**
When you call this API to delete tags from a hyperparameter tuning job, the deleted tags are not removed from training jobs that the hyperparameter tuning job launched before you called this API.

**Request Syntax**

```
{
  "ResourceArn": "string",
  "TagKeys": [ "string" ]
}
```

**Request Parameters**
For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**ResourceArn (p. 139)**
The Amazon Resource Name (ARN) of the resource whose tags you want to delete.

Type: String
Length Constraints: Maximum length of 256.
Pattern: arn:.*
Required: Yes

**TagKeys (p. 139)**
An array or one or more tag keys to delete.

Type: Array of strings
Array Members: Minimum number of 1 item. Maximum number of 50 items.
Pattern: ^([\p{L}|\p{Z}|\p{N}\_\-\:/=\+\-@]*$)
Required: Yes

**Response Elements**
If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

**Errors**
For information about the errors that are common to all actions, see Common Errors (p. 759).
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteTrial
Service: Amazon SageMaker Service

Deletes the specified trial. All trial components that make up the trial must be deleted first. Use the DescribeTrialComponent (p. 246) API to get the list of trial components.

Request Syntax

```
{
   "TrialName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**TrialName (p. 141)**

- The name of the trial to delete.
- Type: String
- Length Constraints: Minimum length of 1. Maximum length of 82.
- Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`  
- Required: Yes

Response Syntax

```
{
   "TrialArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response. The following data is returned in JSON format by the service.

**TrialArn (p. 141)**

- The Amazon Resource Name (ARN) of the trial that is being deleted.
- Type: String
- Length Constraints: Maximum length of 256.
- Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial/.*`

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).
ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteTrialComponent
Service: Amazon SageMaker Service

Deletes the specified trial component. A trial component must be disassociated from all trials before the trial component can be deleted. To disassociate a trial component from a trial, call the DisassociateTrialComponent (p. 258) API.

Request Syntax

```json
{
    "TrialComponentName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**TrialComponentName (p. 143)**

The name of the component to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9][-][a-zA-Z0-9]*$`

Required: Yes

Response Syntax

```json
{
    "TrialComponentArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**TrialComponentArn (p. 143)**

The Amazon Resource Name (ARN) of the component is being deleted.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial-component/.*`
Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFoundException

Resource being accessed is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteUserProfile
Service: Amazon SageMaker Service
Deletes a user profile.

Request Syntax

```json
{
    "DomainId": "string",
    "UserProfileName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**DomainId (p. 145)**

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

**UserProfileName (p. 145)**

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

**ResourceNotFound**

Resource being access is not found.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteWorkteam

Service: Amazon SageMaker Service

Deletes an existing work team. This operation can't be undone.

Request Syntax

```
{
  "WorkteamName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**WorkteamName** (p. 147)

The name of the work team to delete.

Type: String


Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

Response Syntax

```
{
  "Success": boolean
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Success** (p. 147)

Returns true if the work team was successfully deleted; otherwise, returns false.

Type: Boolean

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceLimitExceeded**

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeAlgorithm
Service: Amazon SageMaker Service

Returns a description of the specified algorithm that is in your account.

Request Syntax

```
{
   "AlgorithmName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**AlgorithmName (p. 149)**

The name of the algorithm to describe.

Type: String


Pattern: (arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]?:[0-9]{12}:[a-z\-]*\/)?(\[a-zA-Z0-9\](\[a-zA-Z0-9\-]{0,62})(?<!-)$

Required: Yes

Response Syntax

```
{
   "AlgorithmArn": "string",
   "AlgorithmDescription": "string",
   "AlgorithmName": "string",
   "AlgorithmStatus": "string",
   "AlgorithmStatusDetails": {
      "ImageScanStatuses": [
         {
            "FailureReason": "string",
            "Name": "string",
            "Status": "string"
         }
      ],
      "ValidationStatuses": [
         {
            "FailureReason": "string",
            "Name": "string",
            "Status": "string"
         }
      ]
   },
   "CertifyForMarketplace": boolean,
   "CreationTime": number,
   "InferenceSpecification": {
      "Containers": [
      ]
   }
}
```
"ValidationProfiles": [
  {
    "ProfileName": "string",
    "TrainingJobDefinition": {
      "HyperParameters": {
        "string": "string"
      },
      "InputDataConfig": [
        {
          "ChannelName": "string",
          "CompressionType": "string",
          "ContentType": "string",
          "DataSource": {
            "FileSystemDataSource": {
              "DirectoryPath": "string",
              "FileSystemAccessMode": "string",
              "FileSystemId": "string",
              "FileSystemType": "string"
            },
            "S3DataSource": {
              "AttributeNames": [ "string" ],
              "S3DataDistributionType": "string",
              "S3DataType": "string",
              "S3Uri": "string"
            }
          },
          "InputMode": "string",
          "RecordWrapperType": "string",
          "ShuffleConfig": {
            "Seed": number
          }
        }
      ],
      "OutputDataConfig": {
        "KmsKeyId": "string",
        "S3OutputPath": "string"
      },
      "ResourceConfig": {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
      },
      "StoppingCondition": {
        "MaxRuntimeInSeconds": number,
        "MaxWaitTimeInSeconds": number
      },
      "TrainingInputMode": "string"
    },
    "TransformJobDefinition": {
      "BatchStrategy": "string",
      "Environment": {
        "string": "string"
      },
      "MaxConcurrentTransforms": number,
      "MaxPayloadInMB": number,
      "TransformInput": {
        "CompressionType": "string",
        "ContentType": "string",
        "DataSource": {
          "S3DataSource": {
            "S3DataType": "string",
            "S3Uri": "string"
          }
        },
        "SplitType": "string"
      }
    }
  }
]
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AlgorithmArn (p. 149)

The Amazon Resource Name (ARN) of the algorithm.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:algorithm/.*

AlgorithmDescription (p. 149)

A brief summary about the algorithm.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*

AlgorithmName (p. 149)

The name of the algorithm being described.

Type: String


Pattern: ^[a-zA-Z0-9-$][a-zA-Z0-9]*$
Type: AlgorithmStatusDetails (p. 446) object

**CertifyForMarketplace (p. 149)**

Whether the algorithm is certified to be listed in AWS Marketplace.

Type: Boolean

**CreationTime (p. 149)**

A timestamp specifying when the algorithm was created.

Type: Timestamp

**InferenceSpecification (p. 149)**

Details about inference jobs that the algorithm runs.

Type: InferenceSpecification (p. 569) object

**ProductId (p. 149)**

The product identifier of the algorithm.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*$

**TrainingSpecification (p. 149)**

Details about training jobs run by this algorithm.

Type: TrainingSpecification (p. 707) object

**ValidationSpecification (p. 149)**

Details about configurations for one or more training jobs that Amazon SageMaker runs to test the algorithm.

Type: AlgorithmValidationSpecification (p. 451) object

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeApp
Service: Amazon SageMaker Service

Describes the app.

Request Syntax

```json
{
  "AppName": "string",
  "AppType": "string",
  "DomainId": "string",
  "UserProfileName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

AppName (p. 155)

The name of the app.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])* 

Required: Yes

AppType (p. 155)

The type of app.

Type: String

Valid Values: JupyterServer | KernelGateway | TensorBoard

Required: Yes

DomainId (p. 155)

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

UserProfileName (p. 155)

The user profile name.

Type: String

Length Constraints: Maximum length of 63.
Response Syntax

```json
{
    "AppArn": "string",
    "AppName": "string",
    "AppType": "string",
    "CreationTime": number,
    "DomainId": "string",
    "FailureReason": "string",
    "LastHealthCheckTimestamp": number,
    "LastUserActivityTimestamp": number,
    "ResourceSpec": {
        "EnvironmentArn": "string",
        "InstanceType": "string"
    },
    "Status": "string",
    "UserProfileName": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**AppArn (p. 156)**

The app's Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:app/.*`

**AppName (p. 156)**

The name of the app.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9\-]*[a-zA-Z0-9\-]*$

**AppType (p. 156)**

The type of app.

Type: String

Valid Values: JupyterServer | KernelGateway | TensorBoard

**CreationTime (p. 156)**

The creation time.

Type: Timestamp
DomainId (p. 156)
The domain ID.
Type: String
Length Constraints: Maximum length of 63.

FailureReason (p. 156)
The failure reason.
Type: String
Length Constraints: Maximum length of 1024.

LastHealthCheckTimestamp (p. 156)
The timestamp of the last health check.
Type: Timestamp

LastUserActivityTimestamp (p. 156)
The timestamp of the last user's activity.
Type: Timestamp

ResourceSpec (p. 156)
The instance type and quantity.
Type: ResourceSpec (p. 672) object

Status (p. 156)
The status.
Type: String
Valid Values: Deleted | Deleting | Failed | InService | Pending

UserProfileName (p. 156)
The user profile name.
Type: String
Length Constraints: Maximum length of 63.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*
- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeAutoMLJob

Service: Amazon SageMaker Service

Returns information about an Amazon SageMaker job.

Request Syntax

```
{
    "AutoMLJobName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**AutoMLJobName (p. 159)**

Request information about a job using that job's unique name.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*

Required: Yes

Response Syntax

```
{
    "AutoMLJobArn": "string",
    "AutoMLJobArtifacts": {
        "CandidateDefinitionNotebookLocation": "string",
        "DataExplorationNotebookLocation": "string"
    },
    "AutoMLJobConfig": {
        "CompletionCriteria": {
            "MaxAutoMLJobRuntimeInSeconds": number,
            "MaxCandidates": number,
            "MaxRuntimePerTrainingJobInSeconds": number
        },
        "SecurityConfig": {
            "EnableInterContainerTrafficEncryption": boolean,
            "VolumeKmsKeyId": "string",
            "VpcConfig": {
                "SecurityGroupId": [ "string" ],
                "Subnets": [ "string" ]
            }
        }
    },
    "AutoMLJobName": "string",
    "AutoMLJobObjective": {
        "MetricName": "string"
    }
}
```
"AutoMLJobSecondaryStatus": "string",
"AutoMLJobStatus": "string",
"BestCandidate": {
  "CandidateName": "string",
  "CandidateStatus": "string",
  "CandidateSteps": [
    {
      "CandidateStepArn": "string",
      "CandidateStepName": "string",
      "CandidateStepType": "string"
    }
  ],
  "CreationTime": number,
  "EndTime": number,
  "FailureReason": "string",
  "FinalAutoMLJobObjectiveMetric": {
    "MetricName": "string",
    "Type": "string",
    "Value": number
  },
  "InferenceContainers": [
    {
      "Environment": {
        "string": "string"
      },
      "Image": "string",
      "ModelDataUrl": "string"
    }
  ],
  "LastModifiedTime": number,
  "ObjectiveStatus": "string"
},
"CreationTime": number,
"EndTime": number,
"FailureReason": "string",
"GenerateCandidateDefinitionsOnly": boolean,
"InputDataConfig": [
  {
    "CompressionType": "string",
    "DataSource": {
      "S3DataSource": {
        "S3DataType": "string",
        "S3Uri": "string"
      }
    },
    "TargetAttributeName": "string"
  }
],
"LastModifiedTime": number,
"OutputDataConfig": {
  "KmsKeyId": "string",
  "S3OutputPath": "string"
},
"ProblemType": "string",
"ResolvedAttributes": {
  "AutoMLJobObjective": {
    "MetricName": "string"
  },
  "CompletionCriteria": {
    "MaxAutoMLJobRuntimeInSeconds": number,
    "MaxCandidates": number,
    "MaxRuntimePerTrainingJobInSeconds": number
  },
  "ProblemType": "string"
},
"RoleArn": "string"
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**AutoMLJobArn (p. 159)**

Returns the job's ARN.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:automl-job/.*`

**AutoMLJobArtifacts (p. 159)**

Returns information on the job's artifacts found in AutoMLJobArtifacts.

Type: `AutoMLJobArtifacts (p. 468)` object

**AutoMLJobConfig (p. 159)**

Returns the job's config.

Type: `AutoMLJobConfig (p. 470)` object

**AutoMLJobName (p. 159)**

Returns the name of a job.

Type: String


Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`.

**AutoMLJobObjective (p. 159)**

Returns the job's objective.

Type: `AutoMLJobObjective (p. 471)` object

**AutoMLJobSecondaryStatus (p. 159)**

Returns the job's AutoMLJobSecondaryStatus.

Type: String

Valid Values: Starting | AnalyzingData | FeatureEngineering | ModelTuning | MaxCandidatesReached | Failed | Stopped | MaxAutoMLJobRuntimeReached | Stopping | CandidateDefinitionsGenerated

**AutoMLJobStatus (p. 159)**

Returns the job's AutoMLJobStatus.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

**BestCandidate (p. 159)**

Returns the job's BestCandidate.
Type: **AutoMLCandidate** (p. 462) object

**CreationTime** (p. 159)

Returns the job's creation time.

Type: Timestamp

**EndTime** (p. 159)

Returns the job's end time.

Type: Timestamp

**FailureReason** (p. 159)

Returns the job's FailureReason.

Type: String

Length Constraints: Maximum length of 1024.

**GenerateCandidateDefinitionsOnly** (p. 159)

Returns the job's output from GenerateCandidateDefinitionsOnly.

Type: Boolean

**InputDataConfig** (p. 159)

Returns the job's input data config.

Type: Array of **AutoMLChannel** (p. 465) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

**LastModifiedTime** (p. 159)

Returns the job's last modified time.

Type: Timestamp

**OutputDataConfig** (p. 159)

Returns the job's output data config.

Type: **AutoMLOutputDataConfig** (p. 474) object

**ProblemType** (p. 159)

Returns the job's problem type.

Type: String

Valid Values: BinaryClassification | MulticlassClassification | Regression

**ResolvedAttributes** (p. 159)

This contains ProblemType, AutoMLJobObjective and CompletionCriteria. They're auto-inferred values, if not provided by you. If you do provide them, then they'll be the same as provided.

Type: **ResolvedAttributes** (p. 668) object

**RoleArn** (p. 159)

The Amazon Resource Name (ARN) of the AWS Identity and Access Management (IAM) role that has read permission to the input data location and write permission to the output data location in Amazon S3.
Type: String


Pattern: ^arn:aws[a-z\-]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@\-_\/]++$

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeCodeRepository

Service: Amazon SageMaker Service

Gets details about the specified Git repository.

Request Syntax

```
{
    "CodeRepositoryName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CodeRepositoryName (p. 164)**

The name of the Git repository to describe.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

Required: Yes

Response Syntax

```
{
    "CodeRepositoryArn": "string",
    "CodeRepositoryName": "string",
    "CreationTime": number,
    "GitConfig": {
        "Branch": "string",
        "RepositoryUrl": "string",
        "SecretArn": "string"
    },
    "LastModifiedTime": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**CodeRepositoryArn (p. 164)**

The Amazon Resource Name (ARN) of the Git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:code-repository/.*

**CodeRepositoryName (p. 164)**

The name of the Git repository.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

**CreationTime (p. 164)**

The date and time that the repository was created.

Type: Timestamp

**GitConfig (p. 164)**

Configuration details about the repository, including the URL where the repository is located, the default branch, and the Amazon Resource Name (ARN) of the AWS Secrets Manager secret that contains the credentials used to access the repository.

Type: **GitConfig (p. 534)** object

**LastModifiedTime (p. 164)**

The date and time that the repository was last changed.

Type: Timestamp

**Errors**

For information about the errors that are common to all actions, see **Common Errors (p. 759)**.

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeCompilationJob
Service: Amazon SageMaker Service

Returns information about a model compilation job.

To create a model compilation job, use CreateCompilationJob (p. 27). To get information about multiple model compilation jobs, use ListCompilationJobs (p. 279).

Request Syntax

```json
{
    "CompilationJobName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CompilationJobName (p. 166)**

The name of the model compilation job that you want information about.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*$

Required: Yes

Response Syntax

```json
{
    "CompilationEndTime": number,
    "CompilationJobArn": "string",
    "CompilationJobName": "string",
    "CompilationJobStatus": "string",
    "CompilationStartTime": number,
    "CreationTime": number,
    "FailureReason": "string",
    "InputConfig": {
        "DataInputConfig": "string",
        "Framework": "string",
        "S3Uri": "string"
    },
    "LastModifiedTime": number,
    "ModelArtifacts": {
        "S3ModelArtifacts": "string"
    },
    "OutputConfig": {
        "S3OutputLocation": "string",
        "TargetDevice": "string"
    },
    "RoleArn": "string",
}
```
"StoppingCondition": {  "MaxRuntimeInSeconds": number,  "MaxWaitTimeInSeconds": number }  

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CompilationEndTime (p. 166)

The time when the model compilation job on a compilation job instance ended. For a successful or stopped job, this is when the job's model artifacts have finished uploading. For a failed job, this is when Amazon SageMaker detected that the job failed.

Type: Timestamp

CompilationJobArn (p. 166)

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker assumes to perform the model compilation job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:compilation-job/.*

CompilationJobName (p. 166)

The name of the model compilation job.

Type: String


Pattern: ^[a-zA-Z0-9-]*\-[a-zA-Z0-9]*$  

CompilationJobStatus (p. 166)

The status of the model compilation job.

Type: String

Valid Values: INPROGRESS | COMPLETED | FAILED | STARTING | STOPPING | STOPPED

CompilationStartTime (p. 166)

The time when the model compilation job started the CompilationJob instances.

You are billed for the time between this timestamp and the timestamp in the DescribeCompilationJob:CompilationEndTime (p. 167) field. In Amazon CloudWatch Logs, the start time might be later than this time. That's because it takes time to download the compilation job, which depends on the size of the compilation job container.

Type: Timestamp

CreationTime (p. 166)

The time that the model compilation job was created.
Type: Timestamp

**FailureReason (p. 166)**

If a model compilation job failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

**InputConfig (p. 166)**

Information about the location in Amazon S3 of the input model artifacts, the name and shape of the expected data inputs, and the framework in which the model was trained.

Type: **InputConfig (p. 571) object**

**LastModifiedTime (p. 166)**

The time that the status of the model compilation job was last modified.

Type: Timestamp

**ModelArtifacts (p. 166)**

Information about the location in Amazon S3 that has been configured for storing the model artifacts used in the compilation job.

Type: **ModelArtifacts (p. 599) object**

**OutputConfig (p. 166)**

Information about the output location for the compiled model and the target device that the model runs on.

Type: **OutputConfig (p. 638) object**

**RoleArn (p. 166)**

The Amazon Resource Name (ARN) of the model compilation job.

Type: String


Pattern: `^arn:aws[a-zA-Z\-]*:iam::\d{12}:role/?[a-zA-Z0-9\+\-,\.\@\%\-\-_\/]+$`

**StoppingCondition (p. 166)**

Specifies a limit to how long a model compilation job can run. When the job reaches the time limit, Amazon SageMaker ends the compilation job. Use this API to cap model training costs.

Type: **StoppingCondition (p. 687) object**

**Errors**

For information about the errors that are common to all actions, see **Common Errors (p. 759)**.

**ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeDomain
Service: Amazon SageMaker Service

The description of the domain.

Request Syntax

```
{
    "DomainId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**DomainId (p. 170)**

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

Response Syntax

```
{
    "AuthMode": "string",
    "CreationTime": number,
    "DefaultUserSettings": {
        "ExecutionRole": "string",
        "JupyterServerAppSettings": {
            "DefaultResourceSpec": {
                "EnvironmentArn": "string",
                "InstanceType": "string"
            }
        },
        "KernelGatewayAppSettings": {
            "DefaultResourceSpec": {
                "EnvironmentArn": "string",
                "InstanceType": "string"
            }
        },
        "SecurityGroups": [ "string" ],
        "SharingSettings": {
            "NotebookOutputOption": "string",
            "S3 credsKeyId": "string",
            "S3OutputPath": "string"
        },
        "TensorBoardAppSettings": {
            "DefaultResourceSpec": {
                "EnvironmentArn": "string",
                "InstanceType": "string"
            }
        }
    }
}
```


```

} 
],
"DomainArn": "string",
"DomainId": "string",
"DomainName": "string",
"FailureReason": "string",
"HomeEfsFileSystemId": "string",
"HomeEfsFileSystemKmsKeyId": "string",
"LastModifiedTime": number,
"SingleSignOnManagedApplicationInstanceId": "string",
"Status": "string",
"SubnetIds": [ "string" ],
"Url": "string",
"VpcId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**AuthMode (p. 170)**

The domain's authentication mode.

Type: String

Valid Values: SSO | IAM

**CreationTime (p. 170)**

The creation time.

Type: Timestamp

**DefaultUserSettings (p. 170)**

Settings which are applied to all UserProfile in this domain, if settings are not explicitly specified in a given UserProfile.

Type: UserSettings (p. 749) object

**DomainArn (p. 170)**

The domain's Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:domain/*.*

**DomainId (p. 170)**

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

**DomainName (p. 170)**

The domain name.

Type: String
Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*

**FailureReason (p. 170)**

The failure reason.

Type: String

Length Constraints: Maximum length of 1024.

**HomeEfsFileSystemId (p. 170)**

The ID of the Amazon Elastic File System (EFS) managed by this Domain.

Type: String

Length Constraints: Maximum length of 32.

**HomeEfsFileSystemKmsKeyId (p. 170)**

The AWS Key Management Service encryption key ID.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .*

**LastModifiedTime (p. 170)**

The last modified time.

Type: Timestamp

**SingleSignOnManagedApplicationInstanceId (p. 170)**

The SSO managed application instance ID.

Type: String

Length Constraints: Maximum length of 256.

**Status (p. 170)**

The status.

Type: String

Valid Values: Deleting | Failed | InService | Pending

**SubnetIds (p. 170)**

Security setting to limit to a set of subnets.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

**Url (p. 170)**

The domain's URL.
Type: String
Length Constraints: Maximum length of 1024.

VpcId (p. 170)
The ID of the Amazon Virtual Private Cloud.
Type: String
Length Constraints: Maximum length of 32.
Pattern: \([-0-9a-zA-Z]+\)

Errors
For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFound
Resource being access is not found.
HTTP Status Code: 400

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeEndpoint

Service: Amazon SageMaker Service

Returns the description of an endpoint.

Request Syntax

```json
{
    "EndpointName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**EndpointName (p. 174)**

The name of the endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])* Required: Yes

Response Syntax

```json
{
    "CreationTime": number,
    "DataCaptureConfig": {
        "CaptureStatus": "string",
        "CurrentSamplingPercentage": number,
        "DestinationS3Uri": "string",
        "EnableCapture": boolean,
        "KmsKeyId": "string"
    },
    "EndpointArn": "string",
    "EndpointConfigName": "string",
    "EndpointName": "string",
    "EndpointStatus": "string",
    "FailureReason": "string",
    "LastModifiedTime": number,
    "ProductionVariants": [
        {
            "CurrentInstanceCount": number,
            "CurrentWeight": number,
            "DeployedImages": [
                {
                    "ResolutionTime": number,
                    "ResolvedImage": "string",
                    "SpecifiedImage": "string"
                }
            ]
        }
    ]
}
```
"DesiredInstanceCount": number,
"DesiredWeight": number,
"VariantName": "string"
}
]

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CreationTime (p. 174)

A timestamp that shows when the endpoint was created.

Type: Timestamp

DataCaptureConfig (p. 174)

Type: DataCaptureConfigSummary (p. 499) object

EndpointArn (p. 174)

The Amazon Resource Name (ARN) of the endpoint.

Type: String


Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:endpoint/.*

EndpointConfigName (p. 174)

The name of the endpoint configuration associated with this endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9\-]*\-[a-zA-Z0-9\-]*)*

EndpointName (p. 174)

Name of the endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9\-]*\-[a-zA-Z0-9\-]*)*

EndpointStatus (p. 174)

The status of the endpoint.

- OutOfService: Endpoint is not available to take incoming requests.
- Creating: CreateEndpoint (p. 34) is executing.
- Updating: UpdateEndpoint (p. 400) or UpdateEndpointWeightsAndCapacities (p. 403) is executing.
- SystemUpdating: Endpoint is undergoing maintenance and cannot be updated or deleted or re-scaled until it has completed. This maintenance operation does not change any customer-specified values such as VPC config, KMS encryption, model, instance type, or instance count.
• **RollingBack**: Endpoint fails to scale up or down or change its variant weight and is in the process of rolling back to its previous configuration. Once the rollback completes, endpoint returns to an **InService** status. This transitional status only applies to an endpoint that has autoscaling enabled and is undergoing variant weight or capacity changes as part of an **UpdateEndpointWeightsAndCapacities** (p. 403) call or when the **UpdateEndpointWeightsAndCapacities** (p. 403) operation is called explicitly.

• **InService**: Endpoint is available to process incoming requests.

• **Deleting**: **DeleteEndpoint** (p. 122) is executing.

• **Failed**: Endpoint could not be created, updated, or re-scaled. Use **DescribeEndpoint**:FailureReason (p. 176) for information about the failure. **DeleteEndpoint** (p. 122) is the only operation that can be performed on a failed endpoint.

**Type**: String

**Valid Values**: OutOfService | Creating | Updating | SystemUpdating | RollingBack | InService | Deleting | Failed

**FailureReason** (p. 174)

If the status of the endpoint is **Failed**, the reason why it failed.

**Type**: String

**Length Constraints**: Maximum length of 1024.

**LastModifiedTime** (p. 174)

A timestamp that shows when the endpoint was last modified.

**Type**: Timestamp

**ProductionVariants** (p. 174)

An array of **ProductionVariantSummary** (p. 659) objects, one for each model hosted behind this endpoint.

**Type**: Array of **ProductionVariantSummary** (p. 659) objects

**Array Members**: Minimum number of 1 item.

**Errors**

For information about the errors that are common to all actions, see **Common Errors** (p. 759).

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DescribeEndpointConfig

Service: Amazon SageMaker Service

Returns the description of an endpoint configuration created using the CreateEndpointConfig API.

Request Syntax

```
{
    "EndpointConfigName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**EndpointConfigName (p. 178)**

The name of the endpoint configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*

Required: Yes

Response Syntax

```
{
    "CreationTime": number,
    "DataCaptureConfig": {
        "CaptureContentTypeHeader": {
            "CsvContentTypes": [ "string" ],
            "JsonContentTypes": [ "string" ]
        },
        "CaptureOptions": [ {
            "CaptureMode": "string"
        } ],
        "DestinationS3Uri": "string",
        "EnableCapture": boolean,
        "InitialSamplingPercentage": number,
        "KmsKeyId": "string"
    },
    "EndpointConfigArn": "string",
    "EndpointConfigName": "string",
    "KmsKeyId": "string",
    "ProductionVariants": [ {
        "AcceleratorType": "string",
        "InitialInstanceCount": number,
        "InitialVariantWeight": number,
        "InstanceType": "string",
        "ModelName": "string",
    } ]
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response. The following data is returned in JSON format by the service.

CreationTime (p. 178)

A timestamp that shows when the endpoint configuration was created.

Type: Timestamp

DataCaptureConfig (p. 178)

Type: DataCaptureConfig (p. 497) object

EndpointConfigArn (p. 178)

The Amazon Resource Name (ARN) of the endpoint configuration.

Type: String


Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:endpoint-config/.*

EndpointConfigName (p. 178)

Name of the Amazon SageMaker endpoint configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9-]*([a-zA-Z0-9-]*)*

KmsKeyId (p. 178)

AWS KMS key ID Amazon SageMaker uses to encrypt data when storing it on the ML storage volume attached to the instance.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .*

ProductionVariants (p. 178)

An array of ProductionVariant objects, one for each model that you want to host at this endpoint.

Type: Array of ProductionVariant (p. 657) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeExperiment
Service: Amazon SageMaker Service
Provides a list of an experiment's properties.

Request Syntax

```json
{
   "ExperimentName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**ExperimentName (p. 181)**

The name of the experiment to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*

Required: Yes

Response Syntax

```json
{
   "CreatedBy": {
      "DomainId": "string",
      "UserProfileArn": "string",
      "UserProfileName": "string"
   },
   "CreationTime": number,
   "Description": "string",
   " DisplayName": "string",
   "ExperimentArn": "string",
   " ExperimentName": "string",
   " LastModifiedBy": {
      "DomainId": " string",
      " UserProfileArn": " string",
      " UserProfileName": " string"
   },
   " LastModifiedTime": number,
   " Source": {
      " SourceArn": " string",
      "SourceType": " string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**CreatedBy (p. 181)**

Who created the experiment.

Type: `UserContext (p. 746)` object

**CreationTime (p. 181)**

When the experiment was created.

Type: `Timestamp`

**Description (p. 181)**

The description of the experiment.

Type: `String`

Length Constraints: Maximum length of 3072.

Pattern: .*

**DisplayName (p. 181)**

The name of the experiment as displayed. If `DisplayName` isn't specified, `ExperimentName` is displayed.

Type: `String`

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

**ExperimentArn (p. 181)**

The Amazon Resource Name (ARN) of the experiment.

Type: `String`

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment/.*`

**ExperimentName (p. 181)**

The name of the experiment.

Type: `String`

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

**LastModifiedBy (p. 181)**

Who last modified the experiment.

Type: `UserContext (p. 746)` object

**LastModifiedTime (p. 181)**

When the experiment was last modified.

Type: `Timestamp`
Source (p. 181)

The ARN of the source and, optionally, the type.

Type: ExperimentSource (p. 521) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeFlowDefinition
Service: Amazon SageMaker Service

Returns information about the specified flow definition.

Request Syntax

```json
{
  "FlowDefinitionName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**FlowDefinitionName (p. 184)**

  The name of the flow definition.

  Type: String


  Pattern: ^[a-z0-9](-*[a-z0-9])*$

  Required: Yes

Response Syntax

```json
{
  "CreationTime": number,
  "FailureReason": "string",
  "FlowDefinitionArn": "string",
  "FlowDefinitionName": "string",
  "FlowDefinitionStatus": "string",
  "HumanLoopActivationConfig": {
    "HumanLoopActivationConditionsConfig": {
      "HumanLoopActivationConditions": "string"
    }
  },
  "HumanLoopConfig": {
    "HumanTaskUiArn": "string",
    "PublicWorkforceTaskPrice": {
      "AmountInUsd": {
        "Cents": number,
        "Dollars": number,
        "TenthFractionsOfACent": number
      }
    },
    "TaskAvailabilityLifetimeInSeconds": number,
    "TaskCount": number,
    "TaskDescription": "string",
    "TaskKeywords": [ "string" ],
    "TaskTimeLimitInSeconds": number,
    "TaskTitle": "string",
    "WorkteamArn": "string"
  }
}
```
Amazon SageMaker Service
Amazon Sagemaker API Reference
DescribeFlowDefinition

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CreationTime (p. 184)
The timestamp when the flow definition was created.
Type: Timestamp

FailureReason (p. 184)
Type: String
Length Constraints: Maximum length of 1024.

FlowDefinitionArn (p. 184)
The Amazon Resource Name (ARN) of the flow definition.
Type: String
Length Constraints: Maximum length of 1024.
Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:flow-definition/.*`

FlowDefinitionName (p. 184)
The Amazon Resource Name (ARN) of the flow definition.
Type: String
Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

FlowDefinitionStatus (p. 184)
The status of the flow definition. Valid values are listed below.
Type: String
Valid Values: Initializing | Active | Failed | Deleting

HumanLoopActivationConfig (p. 184)
An object containing information about what triggers a human review workflow.
Type: HumanLoopActivationConfig (p. 537) object

HumanLoopConfig (p. 184)
An object containing information about who works on the task, the workforce task price, and other task details.
Type: HumanLoopConfig (p. 538) object

HumanLoopRequestSource (p. 184)

Container for configuring the source of human task requests. Used to specify if Amazon Rekognition or Amazon Textract is used as an integration source.

Type: HumanLoopRequestSource (p. 543) object

OutputConfig (p. 184)

An object containing information about the output file.

Type: FlowDefinitionOutputConfig (p. 531) object

RoleArn (p. 184)

The Amazon Resource Name (ARN) of the AWS Identity and Access Management (IAM) execution role for the flow definition.

Type: String


Pattern: ^arn:aws[a-z\-]+:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@\-_/]+$

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFoundException

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeHumanTaskUi
Service: Amazon SageMaker Service

Returns information about the requested human task user interface.

Request Syntax

```json
{
   "HumanTaskUiName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**HumanTaskUiName (p. 187)**

The name of the human task user interface you want information about.

- Type: String
- Pattern: `^[a-z0-9](-*[a-z0-9])*$`
- Required: Yes

Response Syntax

```json
{
   "CreationTime": number,
   "HumanTaskUiArn": "string",
   "HumanTaskUiName": "string",
   "UiTemplate": {
      "ContentSha256": "string",
      "Url": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**CreationTime (p. 187)**

The timestamp when the human task user interface was created.

- Type: Timestamp

**HumanTaskUiArn (p. 187)**

The Amazon Resource Name (ARN) of the human task user interface.
Type: String

Length Constraints: Maximum length of 1024.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:human-task-ui/.*

**HumanTaskUiName (p. 187)**

The name of the human task user interface.

Type: String


Pattern: ^[a-z0-9](-*[a-z0-9])*  

**UiTemplate (p. 187)**

Container for user interface template information.

Type: UiTemplatInfo (p. 744) object

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeHyperParameterTuningJob
Service: Amazon SageMaker Service

Gets a description of a hyperparameter tuning job.

Request Syntax

```json
{
  "HyperParameterTuningJobName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**HyperParameterTuningJobName (p. 189)**

The name of the tuning job to describe.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*

Required: Yes

Response Syntax

```json
{
  "BestTrainingJob": {
    "CreationTime": number,
    "FailureReason": "string",
    "FinalHyperParameterTuningJobObjectiveMetric": {
      "MetricName": "string",
      "Type": "string",
      "Value": number
    },
    "ObjectiveStatus": "string",
    "TrainingEndTime": number,
    "TrainingJobArn": "string",
    "TrainingJobDefinitionName": "string",
    "TrainingJobName": "string",
    "TrainingJobStatus": "string",
    "TrainingStartTime": number,
    "TunedHyperParameters": {
      "string": "string"
    },
    "TuningJobName": "string"
  },
  "CreationTime": number,
  "FailureReason": "string",
  "HyperParameterTuningEndTime": number,
  "HyperParameterTuningJobArn": "string",
  "HyperParameterTuningJobConfig": {
```
"HyperParameterTuningJobObjective": {  
  "MetricName": "string",
  "Type": "string"
},
"ParameterRanges": {  
  "CategoricalParameterRanges": [  
    {  
      "Name": "string",
      "Values": [ "string" ]
    }
  ],
  "ContinuousParameterRanges": [  
    {  
      "MaxValue": "string",
      "MinValue": "string",
      "Name": "string",
      "ScalingType": "string"
    }
  ],
  "IntegerParameterRanges": [  
    {  
      "MaxValue": "string",
      "MinValue": "string",
      "Name": "string",
      "ScalingType": "string"
    }
  ]
},
"ResourceLimits": {  
  "MaxNumberOfTrainingJobs": number,
  "MaxParallelTrainingJobs": number
},
"Strategy": "string",
"TrainingJobEarlyStoppingType": "string",
"TuningJobCompletionCriteria": {
  "TargetObjectiveMetricValue": number
}
},
"HyperParameterTuningJobName": "string",
"HyperParameterTuningJobStatus": "string",
"LastModifiedTime": number,
"ObjectiveStatusCounters": {
  "Failed": number,
  "Pending": number,
  "Succeeded": number
},
"OverallBestTrainingJob": {
  "CreationTime": number,
  "FailureReason": "string",
  "FinalHyperParameterTuningJobObjectiveMetric": {
    "MetricName": "string",
    "Type": "string",
    "Value": number
  },
  "ObjectiveStatus": "string",
  "TrainingEndTime": number,
  "TrainingJobArn": "string",
  "TrainingJobDefinitionName": "string",
  "TrainingJobName": "string",
  "TrainingJobStatus": "string",
  "TrainingStartTime": number,
  "TunedHyperParameters": {
    "string": "string"
  },
  "TuningJobName": "string"}
"TrainingJobDefinition": {
  "AlgorithmSpecification": {
    "AlgorithmName": "string",
    "MetricDefinitions": [
      {
        "Name": "string",
        "Regex": "string"
      }
    ],
    "TrainingImage": "string",
    "TrainingInputMode": "string"
  },
  "CheckpointConfig": {
    "LocalPath": "string",
    "S3Uri": "string"
  },
  "DefinitionName": "string",
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableManagedSpotTraining": boolean,
  "EnableNetworkIsolation": boolean,
  "HyperParameterRanges": {
    "CategoricalParameterRanges": [
      {
        "Name": "string",
        "Values": [ "string" ]
      }
    ],
    "ContinuousParameterRanges": [
      {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
        "ScalingType": "string"
      }
    ],
    "IntegerParameterRanges": [
      {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
        "ScalingType": "string"
      }
    ]
  },
  "InputDataConfig": [
    {
      "ChannelName": "string",
      "CompressionType": "string",
      "ContentType": "string",
      "DataSource": {
        "FileSystemDataSource": {
          "DirectoryPath": "string",
          "FileSystemAccessMode": "string",
          "FileSystemId": "string",
          "FileSystemType": "string"
        }
      }
    }
  ],
  "InputMode": "string",
  "RecordWrapperType": "string",
  "ShuffleConfig": {"TrainingJobDefinition": {
  "AlgorithmSpecification": {
    "AlgorithmName": "string",
    "MetricDefinitions": [
      {
        "Name": "string",
        "Regex": "string"
      }
    ],
    "TrainingImage": "string",
    "TrainingInputMode": "string"
  },
  "CheckpointConfig": {
    "LocalPath": "string",
    "S3Uri": "string"
  },
  "DefinitionName": "string",
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableManagedSpotTraining": boolean,
  "EnableNetworkIsolation": boolean,
  "HyperParameterRanges": {
    "CategoricalParameterRanges": [
      {
        "Name": "string",
        "Values": [ "string" ]
      }
    ],
    "ContinuousParameterRanges": [
      {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
        "ScalingType": "string"
      }
    ],
    "IntegerParameterRanges": [
      {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
        "ScalingType": "string"
      }
    ]
  },
  "InputDataConfig": [
    {
      "ChannelName": "string",
      "CompressionType": "string",
      "ContentType": "string",
      "DataSource": {
        "FileSystemDataSource": {
          "DirectoryPath": "string",
          "FileSystemAccessMode": "string",
          "FileSystemId": "string",
          "FileSystemType": "string"
        }
      }
    }
  ],
  "InputMode": "string",
  "RecordWrapperType": "string",
  "ShuffleConfig": {
}
"Seed": number
}
]
,"OutputDataConfig": {
  "KmsKeyId": "string",
  "S3OutputPath": "string"
},
,"ResourceConfig": {
  "InstanceCount": number,
  "InstanceType": "string",
  "VolumeKmsKeyId": "string",
  "VolumeSizeInGB": number
},
,"RoleArn": "string",
,"StaticHyperParameters": {
  "string": "string"
},
,"StoppingCondition": {
  "MaxRuntimeInSeconds": number,
  "MaxWaitTimeInSeconds": number
},
,"TuningObjective": {
  "MetricName": "string",
  "Type": "string"
},
,"VpcConfig": {
  "SecurityGroupId": [ "string" ],
  "Subnets": [ "string" ]
}
],
,"TrainingJobDefinitions": [{$"AlgorithmSpecification": {
  "AlgorithmName": "string",
  "MetricDefinitions": [{$"Name": "string",
    "Regex": "string"
  }]
},
  "TrainingImage": "string",
  "TrainingInputMode": "string"
},
,"CheckpointConfig": {
  "LocalPath": "string",
  "S3Uri": "string"
},
,"DefinitionName": "string",
,"EnableInterContainerTrafficEncryption": boolean,
,"EnableManagedSpotTraining": boolean,
,"EnableNetworkIsolation": boolean,
,"HyperParameterRanges": {
  "CategoricalParameterRanges": [{$"Name": "string",
    "Values": [ "string" ]
  }],
  "ContinuousParameterRanges": [{$"MaxValue": "string",
    "MinValue": "string",
    "Name": "string",
    "ScalingType": "string"
  }]
}
"IntegerParameterRanges": [
  {
    "MaxValue": "string",
    "MinValue": "string",
    "Name": "string",
    "ScalingType": "string"
  }
],
"InputDataConfig": [
  {
    "ChannelName": "string",
    "CompressionType": "string",
    "ContentType": "string",
    "DataSource": {
      "FileSystemDataSource": {
        "DirectoryPath": "string",
        "FileSystemAccessMode": "string",
        "FileSystemId": "string",
        "FileSystemType": "string"
      },
      "S3DataSource": {
        "AttributeNames": [ "string" ],
        "S3DataDistributionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
      }
    },
    "InputMode": "string",
    "RecordWrapperType": "string",
    "ShuffleConfig": {
      "Seed": number
    }
  }
],
"OutputDataConfig": {
  "KmsKeyId": "string",
  "S3OutputPath": "string"
},
"ResourceConfig": {
  "InstanceCount": number,
  "InstanceType": "string",
  "VolumeKmsKeyId": "string",
  "VolumeSizeInGB": number
},
"RoleArn": "string",
"StaticHyperParameters": {
  "string": "string"
},
"StoppingCondition": {
  "MaxRuntimeInSeconds": number,
  "MaxWaitTimeInSeconds": number
},
"TuningObjective": {
  "MetricName": "string",
  "Type": "string"
},
"VpcConfig": {
  "SecurityGroupIds": [ "string" ],
  "Subnets": [ "string" ]
}]
}
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**BestTrainingJob (p. 189)**

A TrainingJobSummary (p. 705) object that describes the training job that completed with the best current HyperParameterTuningJobObjective (p. 564).

Type: HyperParameterTrainingJobSummary (p. 559) object

**CreationTime (p. 189)**

The date and time that the tuning job started.

Type: Timestamp

**FailureReason (p. 189)**

If the tuning job failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

**HyperParameterTuningEndTime (p. 189)**

The date and time that the tuning job ended.

Type: Timestamp

**HyperParameterTuningJobArn (p. 189)**

The Amazon Resource Name (ARN) of the tuning job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:hyper-parameter-tuning-job/.*

**HyperParameterTuningJobConfig (p. 189)**

The HyperParameterTuningJobConfig (p. 562) object that specifies the configuration of the tuning job.

Type: HyperParameterTuningJobConfig (p. 562) object
HyperParameterTuningJobName (p. 189)

The name of the tuning job.

Type: String


Pattern: ^[a-zA-Z0-9-]*[a-zA-Z0-9]$*

HyperParameterTuningJobStatus (p. 189)

The status of the tuning job: InProgress, Completed, Failed, Stopping, or Stopped.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

LastModifiedTime (p. 189)

The date and time that the status of the tuning job was modified.

Type: Timestamp

ObjectiveStatusCounters (p. 189)

The ObjectiveStatusCounters (p. 637) object that specifies the number of training jobs, categorized by the status of their final objective metric, that this tuning job launched.

Type: ObjectiveStatusCounters (p. 637) object

OverallBestTrainingJob (p. 189)

If the hyperparameter tuning job is an warm start tuning job with a WarmStartType of IDENTICAL_DATA_AND_ALGORITHM, this is the TrainingJobSummary (p. 705) for the training job with the best objective metric value of all training jobs launched by this tuning job and all parent jobs specified for the warm start tuning job.

Type: HyperParameterTrainingJobSummary (p. 559) object

TrainingJobDefinition (p. 189)

The HyperParameterTrainingJobDefinition (p. 556) object that specifies the definition of the training jobs that this tuning job launches.

Type: HyperParameterTrainingJobDefinition (p. 556) object

TrainingJobDefinitions (p. 189)

Type: Array of HyperParameterTrainingJobDefinition (p. 556) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

TrainingJobStatusCounters (p. 189)

The TrainingJobStatusCounters (p. 703) object that specifies the number of training jobs, categorized by status, that this tuning job launched.

Type: TrainingJobStatusCounters (p. 703) object

WarmStartConfig (p. 189)

The configuration for starting the hyperparameter parameter tuning job using one or more previous tuning jobs as a starting point. The results of previous tuning jobs are used to inform which combinations of hyperparameters to search over in the new tuning job.

Type: HyperParameterTuningJobWarmStartConfig (p. 567) object
Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeLabelingJob
Service: Amazon SageMaker Service

Gets information about a labeling job.

Request Syntax

```
{
   "LabelingJobName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

LabelingJobName (p. 197)

The name of the labeling job to return information for.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  

Required: Yes

Response Syntax

```
{
   "CreationTime": number,
   "FailureReason": "string",
   "HumanTaskConfig": {
      "AnnotationConsolidationConfig": {
         "AnnotationConsolidationLambdaArn": "string"
      },
      "MaxConcurrentTaskCount": number,
      "NumberOfHumanWorkersPerDataObject": number,
      "PreHumanTaskLambdaArn": "string",
      "PublicWorkforceTaskPrice": {
         "AmountInUsd": {
            "Cents": number,
            "Dollars": number,
            "TenthFractionsOfACent": number
         }
      },
      "TaskAvailabilityLifetimeInSeconds": number,
      "TaskDescription": "string",
      "TaskKeywords": [ "string" ],
      "TaskTimeLimitInSeconds": number,
      "TaskTitle": "string",
      "UiConfig": {
         "UiTemplateS3Uri": "string"
      },
      "WorkteamArn": "string"
   }
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**CreationTime (p. 197)**

The date and time that the labeling job was created.

Type: Timestamp
**FailureReason (p. 197)**

If the job failed, the reason that it failed.

**Type:** String

**Length Constraints:** Maximum length of 1024.

**HumanTaskConfig (p. 197)**

Configuration information required for human workers to complete a labeling task.

**Type:** HumanTaskConfig (p. 544) object

**InputConfig (p. 197)**

Input configuration information for the labeling job, such as the Amazon S3 location of the data objects and the location of the manifest file that describes the data objects.

**Type:** LabelingJobInputConfig (p. 587) object

**JobReferenceCode (p. 197)**

A unique identifier for work done as part of a labeling job.

**Type:** String

**Length Constraints:** Minimum length of 1.

**Pattern:** .+

**LabelAttributeName (p. 197)**

The attribute used as the label in the output manifest file.

**Type:** String

**Length Constraints:** Minimum length of 1. Maximum length of 127.

**Pattern:** ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

**LabelCategoryConfigS3Uri (p. 197)**

The S3 location of the JSON file that defines the categories used to label data objects. Please note the following label-category limits:

- Semantic segmentation labeling jobs using automated labeling: 20 labels
- Box bounding labeling jobs (all): 10 labels

The file is a JSON structure in the following format:

```json
{
   "document-version": "2018-11-28"
   "labels": [
      {
         "label": "label 1"
      },
      {
         "label": "label 2"
      }
   ]
}
```
LabelCounters (p. 197)

Provides a breakdown of the number of data objects labeled by humans, the number of objects labeled by machine, the number of objects than couldn't be labeled, and the total number of objects labeled.

Type: LabelCounters (p. 578) object

LabelingJobAlgorithmsConfig (p. 197)

Configuration information for automated data labeling.

Type: LabelingJobAlgorithmsConfig (p. 581) object

LabelingJobArn (p. 197)

The Amazon Resource Name (ARN) of the labeling job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:labeling-job/.*

LabelingJobName (p. 197)

The name assigned to the labeling job when it was created.

Type: String


Pattern: ^[a-zA-Z0-9](\*[^a-zA-Z0-9])*
LastModifiedTime (p. 197)

The date and time that the labeling job was last updated.

Type: Timestamp

OutputConfig (p. 197)

The location of the job's output data and the AWS Key Management Service key ID for the key used to encrypt the output data, if any.

Type: LabelingJobOutputConfig (p. 589) object

RoleArn (p. 197)

The Amazon Resource Name (ARN) that Amazon SageMaker assumes to perform tasks on your behalf during data labeling.

Type: String


Pattern: ^arn:aws[a-z\-]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@\-_\/]+$

StoppingConditions (p. 197)

A set of conditions for stopping a labeling job. If any of the conditions are met, the job is automatically stopped.

Type: LabelingJobStoppingConditions (p. 592) object

Tags (p. 197)

An array of key/value pairs. For more information, see Using Cost Allocation Tags in the AWS Billing and Cost Management User Guide.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DescribeModel

Service: Amazon SageMaker Service

Describes a model that you created using the CreateModel API.

Request Syntax

```json
{
    "ModelName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**ModelName (p. 203)**

The name of the model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  

Required: Yes

Response Syntax

```json
{
    "Containers": [
        {
            "ContainerHostname": "string",
            "Environment": {
                "string": "string"
            },
            "Image": "string",
            "Mode": "string",
            "ModelDataUrl": "string",
            "ModelPackageName": "string"
        }
    ],
    "CreationTime": number,
    "EnableNetworkIsolation": boolean,
    "ExecutionRoleArn": "string",
    "ModelArn": "string",
    "ModelName": "string",
    "PrimaryContainer": {
        "ContainerHostname": "string",
        "Environment": {
            "string": "string"
        },
        "Image": "string",
        "Mode": "string",
        "ModelDataUrl": "string"
    }
}
```
"ModelPackageName": "string",
"VpcConfig": {
   "SecurityGroupIds": [ "string" ],
   "Subnets": [ "string" ]
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Containers (p. 203)

The containers in the inference pipeline.

Type: Array of ContainerDefinition (p. 492) objects

Array Members: Maximum number of 5 items.

CreationTime (p. 203)

A timestamp that shows when the model was created.

Type: Timestamp

EnableNetworkIsolation (p. 203)

If True, no inbound or outbound network calls can be made to or from the model container.

Type: Boolean

ExecutionRoleArn (p. 203)

The Amazon Resource Name (ARN) of the IAM role that you specified for the model.

Type: String


Pattern: ^arn:aws[a-zA-z-]*:iam::d\{12\}:role/?[a-zA-z-0-9+-.@\-_/]+*

ModelArn (p. 203)

The Amazon Resource Name (ARN) of the model.

Type: String


Pattern: arn:aws[a-zA-z-]*:sagemaker:[a-zA-z0-9-]*:[0-9]{12}:model/.*

ModelName (p. 203)

Name of the Amazon SageMaker model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9-]*(\-[a-zA-Z0-9])*
PrimaryContainer (p. 203)

The location of the primary inference code, associated artifacts, and custom environment map that the inference code uses when it is deployed in production.

Type: ContainerDefinition (p. 492) object

VpcConfig (p. 203)

A VpcConfig (p. 752) object that specifies the VPC that this model has access to. For more information, see Protect Endpoints by Using an Amazon Virtual Private Cloud

Type: VpcConfig (p. 752) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeModelPackage

Service: Amazon SageMaker Service

Returns a description of the specified model package, which is used to create Amazon SageMaker models or list them on AWS Marketplace.

To create models in Amazon SageMaker, buyers can subscribe to model packages listed on AWS Marketplace.

Request Syntax

```json
{
  "ModelPackageName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**ModelPackageName (p. 206)**

The name of the model package to describe.

Type: String


Pattern: (arn:aws[a-z-]*:sagemaker:[a-z0-9-]*:[0-9]{12}:a-z-]*\)?([a-zA-Z0-9-]*\[0,62])?(!-)

Required: Yes

Response Syntax

```json
{
  "CertifyForMarketplace": boolean,
  "CreationTime": number,
  "InferenceSpecification": {
    "Containers": [
      {
        "ContainerHostname": "string",
        "Image": "string",
        "ImageDigest": "string",
        "ModelDataUrl": "string",
        "ProductIds": "string"
      }
    ],
    "SupportedContentTypes": [ "string" ],
    "SupportedRealtimeInferenceInstanceTypes": [ "string" ],
    "SupportedResponseMIMETypes": [ "string" ],
    "SupportedTransformInstanceTypes": [ "string" ]
  },
  "ModelPackageArn": "string",
  "ModelPackageDescription": "string",
  "ModelPackageName": "string",
  "ModelPackageStatus": "string",
  "ModelPackageStatusDetails": {
```
```
"ImageScanStatuses": [
  {
    "FailureReason": "string",
    "Name": "string",
    "Status": "string"
  }
],
"ValidationStatuses": [
  {
    "FailureReason": "string",
    "Name": "string",
    "Status": "string"
  }
],
"SourceAlgorithmSpecification": {
  "SourceAlgorithms": [
    {
      "AlgorithmName": "string",
      "ModelDataUrl": "string"
    }
  ]
},
"ValidationSpecification": {
  "ValidationProfiles": [
    {
      "ProfileName": "string",
      "TransformJobDefinition": {
        "BatchStrategy": "string",
        "Environment": {
          "string": "string"
        },
        "MaxConcurrentTransforms": number,
        "MaxPayloadInMB": number,
        "TransformInput": {
          "CompressionType": "string",
          "ContentType": "string",
          "DataSource": {
            "S3DataSource": {
              "S3DataType": "string",
              "S3Uri": "string"
            }
          },
          "SplitType": "string"
        },
        "TransformOutput": {
          "Accept": "string",
          "AssembleWith": "string",
          "KmsKeyId": "string",
          "S3OutputPath": "string"
        },
        "TransformResources": {
          "InstanceCount": number,
          "InstanceType": "string",
          "VolumeKmsKeyId": "string"
        }
      }
    }
  ],
  "ValidationRole": "string"
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CertifyForMarketplace (p. 206)

Whether the model package is certified for listing on AWS Marketplace.

Type: Boolean

CreationTime (p. 206)

A timestamp specifying when the model package was created.

Type: Timestamp

InferenceSpecification (p. 206)

Details about inference jobs that can be run with models based on this model package.

Type: InferenceSpecification (p. 569) object

ModelPackageArn (p. 206)

The Amazon Resource Name (ARN) of the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:model-package/.*

ModelPackageDescription (p. 206)

A brief summary of the model package.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: \[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}\]*

ModelPackageName (p. 206)

The name of the model package being described.

Type: String


Pattern: ^[a-zA-Z0-9](\-[a-zA-Z0-9])*$

ModelPackageStatus (p. 206)

The current status of the model package.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting

ModelPackageStatusDetails (p. 206)

Details about the current status of the model package.

Type: ModelPackageStatusDetails (p. 602) object
SourceAlgorithmSpecification (p. 206)

Details about the algorithm that was used to create the model package.

Type: SourceAlgorithmSpecification (p. 685) object

ValidationSpecification (p. 206)

Configurations for one or more transform jobs that Amazon SageMaker runs to test the model package.

Type: ModelPackageValidationSpecification (p. 607) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeMonitoringSchedule

Service: Amazon SageMaker Service

Describes the schedule for a monitoring job.

Request Syntax

```json
{
  "MonitoringScheduleName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**MonitoringScheduleName (p. 210)**

Name of a previously created monitoring schedule.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

Required: Yes

Response Syntax

```json
{
  "CreationTime": number,
  "EndpointName": "string",
  "FailureReason": "string",
  "LastModifiedTime": number,
  "LastMonitoringExecutionSummary": {
    "CreationTime": number,
    "EndpointName": "string",
    "FailureReason": "string",
    "LastModifiedTime": number,
    "MonitoringExecutionStatus": "string",
    "MonitoringScheduleName": "string",
    "ProcessingJobArn": "string",
    "ScheduledTime": number
  },
  "MonitoringScheduleArn": "string",
  "MonitoringScheduleConfig": {
    "MonitoringJobDefinition": {
      "BaselineConfig": {
        "ConstraintsResource": {
          "S3Uri": "string"
        },
        "StatisticsResource": {
          "S3Uri": "string"
        }
      }
    },
    "Environment": {
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
CreationTime (p. 210)

The time at which the monitoring job was created.
Type: Timestamp

EndpointName (p. 210)

The name of the endpoint for the monitoring job.
Type: String
Length Constraints: Maximum length of 63.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

FailureReason (p. 210)

A string, up to one KB in size, that contains the reason a monitoring job failed, if it failed.
Type: String
Length Constraints: Maximum length of 1024.

LastModifiedTime (p. 210)

The time at which the monitoring job was last modified.
Type: Timestamp

LastMonitoringExecutionSummary (p. 210)

Describes metadata on the last execution to run, if there was one.
Type: MonitoringExecutionSummary (p. 615) object

MonitoringScheduleArn (p. 210)

The Amazon Resource Name (ARN) of the monitoring schedule.
Type: String
Length Constraints: Maximum length of 256.
Pattern: .*

MonitoringScheduleConfig (p. 210)

The configuration object that specifies the monitoring schedule and defines the monitoring job.
Type: MonitoringScheduleConfig (p. 624) object

MonitoringScheduleName (p. 210)

Name of the monitoring schedule.
Type: String
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

MonitoringScheduleStatus (p. 210)

The status of an monitoring job.
Type: String
Valid Values: Pending | Failed | Scheduled | Stopped

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeNotebookInstance
Service: Amazon SageMaker Service

Returns information about a notebook instance.

Request Syntax

```json
{
   "NotebookInstanceName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**NotebookInstanceName** (p. 214)

The name of the notebook instance that you want information about.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])* 

Required: Yes

Response Syntax

```json
{
   "AcceleratorTypes": [ "string" ],
   "AdditionalCodeRepositories": [ "string" ],
   "CreationTime": number,
   "DefaultCodeRepository": "string",
   "DirectInternetAccess": "string",
   "FailureReason": "string",
   "InstanceType": "string",
   "KmsKeyId": "string",
   "LastModifiedTime": number,
   "NetworkInterfaceId": "string",
   "NotebookInstanceArn": "string",
   "NotebookInstanceLifecycleConfigName": "string",
   "NotebookInstanceName": "string",
   "NotebookInstanceStatus": "string",
   "RoleArn": "string",
   "RootAccess": "string",
   "SecurityGroups": [ "string" ],
   "SubnetId": "string",
   "Url": "string",
   "VolumeSizeInGB": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

214
The following data is returned in JSON format by the service.

**AcceleratorTypes (p. 214)**

A list of the Elastic Inference (EI) instance types associated with this notebook instance. Currently only one EI instance type can be associated with a notebook instance. For more information, see Using Elastic Inference in Amazon SageMaker.

Type: Array of strings

Valid Values: ml.eia1.medium | ml.eia1.large | ml.eia1.xlarge | ml.eia2.medium | ml.eia2.large | ml.eia2.xlarge

**AdditionalCodeRepositories (p. 214)**

An array of up to three Git repositories associated with the notebook instance. These can be either the names of Git repositories stored as resources in your account, or the URL of Git repositories in AWS CodeCommit or in any other Git repository. These repositories are cloned at the same level as the default repository of your notebook instance. For more information, see Associating Git Repositories with Amazon SageMaker Notebook Instances.

Type: Array of strings

Array Members: Maximum number of 3 items.


Pattern: ^https://([^/]+)/(.*)$ | ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*

**CreationTime (p. 214)**

A timestamp. Use this parameter to return the time when the notebook instance was created.

Type: Timestamp

**DefaultCodeRepository (p. 214)**

The Git repository associated with the notebook instance as its default code repository. This can be either the name of a Git repository stored as a resource in your account, or the URL of a Git repository in AWS CodeCommit or in any other Git repository. When you open a notebook instance, it opens in the directory that contains this repository. For more information, see Associating Git Repositories with Amazon SageMaker Notebook Instances.

Type: String


Pattern: ^https://([^/]+)/(.*)$ | ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*

**DirectInternetAccess (p. 214)**

Describes whether Amazon SageMaker provides internet access to the notebook instance. If this value is set to Disabled, the notebook instance does not have internet access, and cannot connect to Amazon SageMaker training and endpoint services.

For more information, see Notebook Instances Are Internet-Enabled by Default.

Type: String

Valid Values: Enabled | Disabled

**FailureReason (p. 214)**

If status is Failed, the reason it failed.
**InstanceType (p. 214)**

The type of ML compute instance running on the notebook instance.

Type: String

Valid Values:
- ml.t2.medium
- ml.t2.large
- ml.t2.xlarge
- ml.t2.2xlarge
- ml.t3.medium
- ml.t3.large
- ml.t3.xlarge
- ml.t3.2xlarge
- ml.m4.xlarge
- ml.m4.2xlarge
- ml.m4.4xlarge
- ml.m4.10xlarge
- ml.m4.16xlarge
- ml.m5.xlarge
- ml.m5.2xlarge
- ml.m5.4xlarge
- ml.m5.12xlarge
- ml.m5.24xlarge
- ml.c4.xlarge
- ml.c4.2xlarge
- ml.c4.4xlarge
- ml.c4.8xlarge
- ml.c5.xlarge
- ml.c5.2xlarge
- ml.c5.4xlarge
- ml.c5.9xlarge
- ml.c5.18xlarge
- ml.c5d.xlarge
- ml.c5d.2xlarge
- ml.c5d.4xlarge
- ml.c5d.9xlarge
- ml.c5d.18xlarge
- ml.p2.xlarge
- ml.p2.8xlarge
- ml.p2.16xlarge
- ml.p3.xlarge
- ml.p3.8xlarge
- ml.p3.16xlarge

**KmsKeyId (p. 214)**

The AWS KMS key ID Amazon SageMaker uses to encrypt data when storing it on the ML storage volume attached to the instance.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .*

**LastModifiedTime (p. 214)**

A timestamp. Use this parameter to retrieve the time when the notebook instance was last modified.

Type: Timestamp

**NetworkInterfaceId (p. 214)**

The network interface IDs that Amazon SageMaker created at the time of creating the instance.

Type: String

**NotebookInstanceArn (p. 214)**

The Amazon Resource Name (ARN) of the notebook instance.

Type: String

Length Constraints: Maximum length of 256.

**NotebookInstanceLifecycleConfigName (p. 214)**

Returns the name of a notebook instance lifecycle configuration.

For information about notebook instance lifestyle configurations, see Step 2.1: (Optional) Customize a Notebook Instance

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

**NotebookInstanceName (p. 214)**

The name of the Amazon SageMaker notebook instance.
DescribeNotebookInstance

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*

NotebookInstanceStatus (p. 214)

The status of the notebook instance.

Type: String

Valid Values: Pending | InService | Stopping | Stopped | Failed | Deleting | Updating

RoleArn (p. 214)

The Amazon Resource Name (ARN) of the IAM role associated with the instance.

Type: String


Pattern: ^arn:aws[a-z\-]*:iam::\d{12}:role/?[a-zA-ZA-Z_0-9+=,.@\-_/]+$

RootAccess (p. 214)

Whether root access is enabled or disabled for users of the notebook instance.

Note
Lifecycle configurations need root access to be able to set up a notebook instance. Because of this, lifecycle configurations associated with a notebook instance always run with root access even if you disable root access for users.

Type: String

Valid Values: Enabled | Disabled

SecurityGroups (p. 214)

The IDs of the VPC security groups.

Type: Array of strings

Array Members: Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

SubnetId (p. 214)

The ID of the VPC subnet.

Type: String

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Url (p. 214)

The URL that you use to connect to the Jupyter notebook that is running in your notebook instance.

Type: String
VolumeSizeInGB (p. 214)

The size, in GB, of the ML storage volume attached to the notebook instance.

Type: Integer


Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeNotebookInstanceLifecycleConfig

Service: Amazon SageMaker Service

Returns a description of a notebook instance lifecycle configuration.

For information about notebook instance lifestyle configurations, see Step 2.1: (Optional) Customize a Notebook Instance.

Request Syntax

```
{
   "NotebookInstanceLifecycleConfigName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**NotebookInstanceLifecycleConfigName (p. 219)**

The name of the lifecycle configuration to describe.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  

Required: Yes

Response Syntax

```
{
   "CreationTime": number,
   "LastModifiedTime": number,
   "NotebookInstanceLifecycleConfigArn": "string",
   "NotebookInstanceLifecycleConfigName": "string",
   "OnCreate": [
      {
         "Content": "string"
      }
   ],
   "OnStart": [
      {
         "Content": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
CreationTime (p. 219)

A timestamp that tells when the lifecycle configuration was created.

Type: Timestamp

LastModifiedTime (p. 219)

A timestamp that tells when the lifecycle configuration was last modified.

Type: Timestamp

NotebookInstanceLifecycleConfigArn (p. 219)

The Amazon Resource Name (ARN) of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 256.

NotebookInstanceLifecycleConfigName (p. 219)

The name of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9\-\(\)*\[\]\|\^\`\{\}\|](-*[a-zA-Z0-9\-\(\)*\[\]\|\^\`\{\}\|])*$

OnCreate (p. 219)

The shell script that runs only once, when you create a notebook instance.

Type: Array of NotebookInstanceLifecycleHook (p. 632) objects

Array Members: Maximum number of 1 item.

OnStart (p. 219)

The shell script that runs every time you start a notebook instance, including when you create the notebook instance.

Type: Array of NotebookInstanceLifecycleHook (p. 632) objects

Array Members: Maximum number of 1 item.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
### DescribeProcessingJob

**Service:** Amazon SageMaker Service  

Returns a description of a processing job.

**Request Syntax**

```json
{
   "ProcessingJobName": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**ProcessingJobName (p. 222)**

The name of the processing job. The name must be unique within an AWS Region in the AWS account.

- **Type:** String
- **Length Constraints:** Minimum length of 1. Maximum length of 63.
- **Pattern:** `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`
- **Required:** Yes

**Response Syntax**

```json
{
   "AppSpecification": {
      "ContainerArguments": [ "string" ],
      "ContainerEntrypoint": [ "string" ],
      "ImageUri": "string"
   },
   "AutoMLJobArn": "string",
   "CreationTime": number,
   "Environment": {
      "string": "string"
   },
   "ExitMessage": "string",
   "ExperimentConfig": {
      "ExperimentName": "string",
      "TrialComponentDisplayName": "string",
      "TrialName": "string"
   },
   "FailureReason": "string",
   "LastModifiedTime": number,
   "MonitoringScheduleArn": "string",
   "NetworkConfig": {
      "EnableNetworkIsolation": boolean,
      "VpcConfig": {
         "SecurityGroupIds": [ "string" ],
         "Subnets": [ "string" ]
      }
   }
}
```
### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**AppSpecification (p. 222)**

Configures the processing job to run a specified container image.

Type: AppSpecification (p. 461) object

**AutoMLJobArn (p. 222)**

The ARN of an AutoML job associated with this processing job.

Type: String
Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:automl-job/.*

**CreationTime (p. 222)**

The time at which the processing job was created.

Type: Timestamp

**Environment (p. 222)**

The environment variables set in the Docker container.

Type: String to string map

Key Length Constraints: Maximum length of 256.

Key Pattern: [a-zA-Z_][a-zA-Z0-9_]*

Value Length Constraints: Maximum length of 256.

Value Pattern: [\S\s]*

**ExitMessage (p. 222)**

An optional string, up to one KB in size, that contains metadata from the processing container when the processing job exits.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\S\s]*

**ExperimentConfig (p. 222)**

The configuration information used to create an experiment.

Type: ExperimentConfig (p. 520) object

**FailureReason (p. 222)**

A string, up to one KB in size, that contains the reason a processing job failed, if it failed.

Type: String

Length Constraints: Maximum length of 1024.

**LastModifiedTime (p. 222)**

The time at which the processing job was last modified.

Type: Timestamp

**MonitoringScheduleArn (p. 222)**

The ARN of a monitoring schedule for an endpoint associated with this processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .*

**NetworkConfig (p. 222)**

Networking options for a processing job.
Type: NetworkConfig (p. 630) object

**ProcessingEndTime (p. 222)**

The time at which the processing job completed.

Type: Timestamp

**ProcessingInputs (p. 222)**

The inputs for a processing job.

Type: Array of ProcessingInput (p. 647) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

**ProcessingJobArn (p. 222)**

The Amazon Resource Name (ARN) of the processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:processing-job/.*`

**ProcessingJobName (p. 222)**

The name of the processing job. The name must be unique within an AWS Region in the AWS account.

Type: String


Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*`

**ProcessingJobStatus (p. 222)**

Provides the status of a processing job.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

**ProcessingOutputConfig (p. 222)**

Output configuration for the processing job.

Type: ProcessingOutputConfig (p. 651) object

**ProcessingResources (p. 222)**

Identifies the resources, ML compute instances, and ML storage volumes to deploy for a processing job. In distributed training, you specify more than one instance.

Type: ProcessingResources (p. 652) object

**ProcessingStartTime (p. 222)**

The time at which the processing job started.

Type: Timestamp

**RoleArn (p. 222)**

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.
Type: String
Pattern: ^arn:aws[a-z\-]*:iam::\d{12}:role/?[a-zA-Z0-9_0-9+=,.@-_]+$  

StoppingCondition (p. 222)

The time limit for how long the processing job is allowed to run.
Type: ProcessingStoppingCondition (p. 656) object

TrainingJobArn (p. 222)

The ARN of a training job associated with this processing job.
Type: String
Length Constraints: Maximum length of 256.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-zA-Z0-9\-]*:[0-9]{12}:training-job/.*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFound

Resource being access is not found.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeSubscribedWorkteam

Service: Amazon SageMaker Service

Gets information about a work team provided by a vendor. It returns details about the subscription with a vendor in the AWS Marketplace.

Request Syntax

```
{
  "WorkteamArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**WorkteamArn (p. 227)**

The Amazon Resource Name (ARN) of the subscribed work team to describe.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:workteam/.*`

Required: Yes

Response Syntax

```
{
  "SubscribedWorkteam": {
    "ListingId": "string",
    "MarketplaceDescription": "string",
    "MarketplaceTitle": "string",
    "SellerName": "string",
    "WorkteamArn": "string"
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**SubscribedWorkteam (p. 227)**

A `Workteam` instance that contains information about the work team.

Type: `SubscribedWorkteam (p. 688)` object
Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeTrainingJob

Service: Amazon SageMaker Service

Returns information about a training job.

Request Syntax

```json
{
   "TrainingJobName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

TrainingJobName (p. 229)

The name of the training job.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*

Required: Yes

Response Syntax

```json
{
   "AlgorithmSpecification": {
      "AlgorithmName": "string",
      "EnableSageMakerMetricsTimeSeries": boolean,
      "MetricDefinitions": [
         {
            "Name": "string",
            "Regex": "string"
         }
      ],
      "TrainingImage": "string",
      "TrainingInputMode": "string"
   },
   "AutoMLJobArn": "string",
   "BillableTimeInSeconds": number,
   "CheckpointConfig": {
      "LocalPath": "string",
      "S3Uri": "string"
   },
   "CreationTime": number,
   "DebugHookConfig": {
      "CollectionConfigurations": [
         {
            "CollectionName": "string",
            "CollectionParameters": {
               "string": "string"
            }
         }
      ]
   }
}
```


}
],
"HookParameters": { 
  "string": "string"
},
"LocalPath": "string",
"S3OutputPath": "string"
},
"DebugRuleConfigurations": [
  {
    "InstanceType": "string",
    "LocalPath": "string",
    "RuleConfigurationName": "string",
    "RuleEvaluatorImage": "string",
    "RuleParameters": {
      "string": "string"
    },
    "S3OutputPath": "string",
    "VolumeSizeInGB": number
  }
],
"DebugRuleEvaluationStatuses": [
  {
    "LastModifiedTime": number,
    "RuleConfigurationName": "string",
    "RuleEvaluationJobArn": "string",
    "RuleEvaluationStatus": "string",
    "StatusDetails": "string"
  }
],
"EnableInterContainerTrafficEncryption": boolean,
"EnableManagedSpotTraining": boolean,
"EnableNetworkIsolation": boolean,
"ExperimentConfig": {
  "ExperimentName": "string",
  "TrialComponentDisplayName": "string",
  "TrialName": "string"
},
"FailureReason": "string",
"FinalMetricDataList": [
  {
    "MetricName": "string",
    "Timestamp": number,
    "Value": number
  }
],
"HyperParameters": {
  "string": "string"
},
"InputDataConfig": [
  {
    "ChannelName": "string",
    "CompressionType": "string",
    "ContentType": "string",
    "DataSource": {
      "FileSystemDataSource": {
        "DirectoryPath": "string",
        "FileSystemAccessMode": "string",
        "FileSystemId": "string",
        "FileSystemType": "string"
      },
      "S3DataSource": {
        "AttributeNames": [ "string" ],
        "S3DataDistributionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
      }
    }
  }
}
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AlgorithmSpecification (p. 229)

Information about the algorithm used for training, and algorithm metadata.
Type: `AlgorithmSpecification (p. 444)` object

**AutoMLJobArn (p. 229)**

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:automl-job/.*`

**BillableTimeInSeconds (p. 229)**

The billable time in seconds.

You can calculate the savings from using managed spot training using the formula \((1 - \text{BillableTimeInSeconds} / \text{TrainingTimeInSeconds}) \times 100\). For example, if `BillableTimeInSeconds` is 100 and `TrainingTimeInSeconds` is 500, the savings is 80%.

Type: Integer

Valid Range: Minimum value of 1.

**CheckpointConfig (p. 229)**

Contains information about the output location for managed spot training checkpoint data.

Type: `CheckpointConfig (p. 485)` object

**CreationTime (p. 229)**

A timestamp that indicates when the training job was created.

Type: Timestamp

**DebugHookConfig (p. 229)**

Configuration information for the debug hook parameters, collection configuration, and storage paths.

Type: `DebugHookConfig (p. 503)` object

**DebugRuleConfigurations (p. 229)**

Configuration information for debugging rules.

Type: Array of `DebugRuleConfiguration (p. 505)` objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

**DebugRuleEvaluationStatuses (p. 229)**

Status about the debug rule evaluation.

Type: Array of `DebugRuleEvaluationStatus (p. 507)` objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

**EnableInterContainerTrafficEncryption (p. 229)**

To encrypt all communications between ML compute instances in distributed training, choose `True`. Encryption provides greater security for distributed training, but training might take longer. How long it takes depends on the amount of communication between compute instances, especially if you use a deep learning algorithms in distributed training.

Type: Boolean

**EnableManagedSpotTraining (p. 229)**

A Boolean indicating whether managed spot training is enabled (`True`) or not (`False`).
EnableNetworkIsolation (p. 229)

If you want to allow inbound or outbound network calls, except for calls between peers within a training cluster for distributed training, choose True. If you enable network isolation for training jobs that are configured to use a VPC, Amazon SageMaker downloads and uploads customer data and model artifacts through the specified VPC, but the training container does not have network access.

ExperimentConfig (p. 229)

Configuration for the experiment.

FailureReason (p. 229)

If the training job failed, the reason it failed.

FinalMetricDataList (p. 229)

A collection of MetricData objects that specify the names, values, and dates and times that the training algorithm emitted to Amazon CloudWatch.

HyperParameters (p. 229)

Algorithm-specific parameters.

InputDataConfig (p. 229)

An array of Channel objects that describes each data input channel.

LabelingJobArn (p. 229)

The Amazon Resource Name (ARN) of the Amazon SageMaker Ground Truth labeling job that created the transform or training job.
LastModifiedTime (p. 229)
A timestamp that indicates when the status of the training job was last modified.
Type: Timestamp

ModelArtifacts (p. 229)
Information about the Amazon S3 location that is configured for storing model artifacts.
Type: ModelArtifacts (p. 599) object

OutputDataConfig (p. 229)
The S3 path where model artifacts that you configured when creating the job are stored. Amazon SageMaker creates subfolders for model artifacts.
Type: OutputDataConfig (p. 639) object

ResourceConfig (p. 229)
Resources, including ML compute instances and ML storage volumes, that are configured for model training.
Type: ResourceConfig (p. 669) object

RoleArn (p. 229)
The AWS Identity and Access Management (IAM) role configured for the training job.
Type: String
Pattern: ^arn:aws[a-z-]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@-_/*]+$

SecondaryStatus (p. 229)
Provides detailed information about the state of the training job. For detailed information on the secondary status of the training job, see StatusMessage under SecondaryStatusTransition (p. 680).

Amazon SageMaker provides primary statuses and secondary statuses that apply to each of them:

InProgress
• Starting - Starting the training job.
• Downloading - An optional stage for algorithms that support File training input mode. It indicates that data is being downloaded to the ML storage volumes.
• Training - Training is in progress.
• Interrupted - The job stopped because the managed spot training instances were interrupted.
• Uploading - Training is complete and the model artifacts are being uploaded to the S3 location.

Completed
• Completed - The training job has completed.

Failed
• Failed - The training job has failed. The reason for the failure is returned in the FailureReason field of DescribeTrainingJobResponse.

Stopped
• MaxRuntimeExceeded - The job stopped because it exceeded the maximum allowed runtime.
• MaxWaitTimeExceeded - The job stopped because it exceeded the maximum allowed wait time.
• Stopped - The training job has stopped.

Stopping
• Stopping - Stopping the training job.

**Important**
Valid values for SecondaryStatus are subject to change.

We no longer support the following secondary statuses:
• LaunchingMLInstances
• PreparingTrainingStack
• DownloadingTrainingImage

Type: String
Valid Values: Starting | LaunchingMLInstances | PreparingTrainingStack | Downloading | DownloadingTrainingImage | Training | Uploading | Stopping | Stopped | MaxRuntimeExceeded | Completed | Failed | Interrupted | MaxWaitTimeExceeded

**SecondaryStatusTransitions (p. 229)**
A history of all of the secondary statuses that the training job has transitioned through.

Type: Array of **SecondaryStatusTransition (p. 680)** objects

**StoppingCondition (p. 229)**
Specifies a limit to how long a model training job can run. It also specifies the maximum time to wait for a spot instance. When the job reaches the time limit, Amazon SageMaker ends the training job. Use this API to cap model training costs.

To stop a job, Amazon SageMaker sends the algorithm the **SIGTERM** signal, which delays job termination for 120 seconds. Algorithms can use this 120-second window to save the model artifacts, so the results of training are not lost.

Type: **StoppingCondition (p. 687)** object

**TensorBoardOutputConfig (p. 229)**
Configuration of storage locations for TensorBoard output.

Type: **TensorBoardOutputConfig (p. 693)** object

**TrainingEndTime (p. 229)**
Indicates the time when the training job ends on training instances. You are billed for the time interval between the value of **TrainingStartTime** and this time. For successful jobs and stopped jobs, this is the time after model artifacts are uploaded. For failed jobs, this is the time when Amazon SageMaker detects a job failure.

Type: Timestamp

**TrainingJobArn (p. 229)**
The Amazon Resource Name (ARN) of the training job.

Type: String
Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:training-job/.*`
TrainingJobName (p. 229)

Name of the model training job.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*

TrainingJobStatus (p. 229)

The status of the training job.

Amazon SageMaker provides the following training job statuses:
- **InProgress** - The training is in progress.
- **Completed** - The training job has completed.
- **Failed** - The training job has failed. To see the reason for the failure, see the FailureReason field in the response to a DescribeTrainingJobResponse call.
- **Stopping** - The training job is stopping.
- **Stopped** - The training job has stopped.

For more detailed information, see SecondaryStatus.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

TrainingStartTime (p. 229)

Indicates the time when the training job starts on training instances. You are billed for the time interval between this time and the value of TrainingEndTime. The start time in CloudWatch Logs might be later than this time. The difference is due to the time it takes to download the training data and to the size of the training container.

Type: Timestamp

TrainingTimeInSeconds (p. 229)

The training time in seconds.

Type: Integer

Valid Range: Minimum value of 1.

TuningJobArn (p. 229)

The Amazon Resource Name (ARN) of the associated hyperparameter tuning job if the training job was launched by a hyperparameter tuning job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:hyper-parameter-tuning-job/.*

VpcConfig (p. 229)

A VpcConfig (p. 752) object that specifies the VPC that this training job has access to. For more information, see Protect Training Jobs by Using an Amazon Virtual Private Cloud.

Type: VpcConfig (p. 752) object
Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeTransformJob
Service: Amazon SageMaker Service

Returns information about a transform job.

Request Syntax

```
{
    "TransformJobName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

TransformJobName (p. 238)

The name of the transform job that you want to view details of.

Type: String


Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

Response Syntax

```
{
    "AutoMLJobArn": "string",
    "BatchStrategy": "string",
    "CreationTime": number,
    "DataProcessing": {
        "InputFilter": "string",
        "JoinSource": "string",
        "OutputFilter": "string"
    },
    "Environment": {
        "string": "string"
    },
    "ExperimentConfig": {
        "ExperimentName": "string",
        "TrialComponentDisplayName": "string",
        "TrialName": "string"
    },
    "FailureReason": "string",
    "LabelingJobArn": "string",
    "MaxConcurrentTransforms": number,
    "MaxPayloadInMB": number,
    "ModelName": "string",
    "TransformEndTime": number,
    "TransformInput": {
        "CompressionType": "string",
        "ContentType": "string",
        "DataSource": {
```
"S3DataSource": { 
  "S3DataType": "string",
  "S3Uri": "string"
}, 
"SplitType": "string",
"TransformJobArn": "string",
"TransformJobName": "string",
"TransformJobStatus": "string",
"TransformOutput": { 
  "Accept": "string",
  "AssembleWith": "string",
  "KmsKeyId": "string",
  "S3OutputPath": "string"
}, 
"TransformResources": { 
  "InstanceCount": number,
  "InstanceType": "string",
  "VolumeKmsKeyId": "string"
}, 
"TransformStartTime": number

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**AutoMLJobArn (p. 238)**

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:automl-job/.*

**BatchStrategy (p. 238)**

Specifies the number of records to include in a mini-batch for an HTTP inference request. A record is a single unit of input data that inference can be made on. For example, a single line in a CSV file is a record.

To enable the batch strategy, you must set SplitType to Line, RecordIO, or TFRecord.

Type: String

Valid Values: MultiRecord | SingleRecord

**CreationTime (p. 238)**

A timestamp that shows when the transform Job was created.

Type: Timestamp

**DataProcessing (p. 238)**

The data structure used to specify the data to be used for inference in a batch transform job and to associate the data that is relevant to the prediction results in the output. The input filter provided allows you to exclude input data that is not needed for inference in a batch transform job. The output filter provided allows you to include input data relevant to interpreting the predictions in the output from the job. For more information, see [Associate Prediction Results with their Corresponding Input Records](https://docs.aws.amazon.com/sagemaker/latest/dg/associate-prediction-results-with-input-records.html).
Type: DataProcessing (p. 500) object

Environment (p. 238)

The environment variables to set in the Docker container. We support up to 16 key and values entries in the map.

Type: String to string map

Key Length Constraints: Maximum length of 1024.

Key Pattern: [a-zA-Z\-\_]\[a-zA-Z0-9\-\_]*

Value Length Constraints: Maximum length of 10240.

Value Pattern: [:S\s]*

ExperimentConfig (p. 238)

Configuration for the experiment.

Type: ExperimentConfig (p. 520) object

FailureReason (p. 238)

If the transform job failed, FailureReason describes why it failed. A transform job creates a log file, which includes error messages, and stores it as an Amazon S3 object. For more information, see Log Amazon SageMaker Events with Amazon CloudWatch.

Type: String

Length Constraints: Maximum length of 1024.

LabelingJobArn (p. 238)

The Amazon Resource Name (ARN) of the Amazon SageMaker Ground Truth labeling job that created the transform or training job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: arn:aws[a-zA-Z\-\*]:sagemaker:[a-zA-Z0-9\-\*]:[0-9]{12}:labeling-job/.*

MaxConcurrentTransforms (p. 238)

The maximum number of parallel requests on each instance node that can be launched in a transform job. The default value is 1.

Type: Integer

Valid Range: Minimum value of 0.

MaxPayloadInMB (p. 238)

The maximum payload size, in MB, used in the transform job.

Type: Integer

Valid Range: Minimum value of 0.

ModelName (p. 238)

The name of the model used in the transform job.

Type: String
Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9-]*[a-zA-Z0-9]*$

**TransformEndTime (p. 238)**

Indicates when the transform job has been completed, or has stopped or failed. You are billed for the time interval between this time and the value of `TransformStartTime`.

Type: Timestamp

**TransformInput (p. 238)**

Describes the dataset to be transformed and the Amazon S3 location where it is stored.

Type: `TransformInput` (p. 710) object

**TransformJobArn (p. 238)**

The Amazon Resource Name (ARN) of the transform job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z-]*:[0-9]{12}:transform-job/.*`

**TransformJobName (p. 238)**

The name of the transform job.

Type: String


Pattern: ^[a-zA-Z0-9-]*[a-zA-Z0-9]*$

**TransformJobStatus (p. 238)**

The status of the transform job. If the transform job failed, the reason is returned in the `FailureReason` field.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

**TransformOutput (p. 238)**

Identifies the Amazon S3 location where you want Amazon SageMaker to save the results from the transform job.

Type: `TransformOutput` (p. 716) object

**TransformResources (p. 238)**

Describes the resources, including ML instance types and ML instance count, to use for the transform job.

Type: `TransformResources` (p. 718) object

**TransformStartTime (p. 238)**

Indicates when the transform job starts on ML instances. You are billed for the time interval between this time and the value of `TransformEndTime`.

Type: Timestamp
Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeTrial

Service: Amazon SageMaker Service

Provides a list of a trial's properties.

Request Syntax

```json
{
    "TrialName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**TrialName (p. 243)**

The name of the trial to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*

Required: Yes

Response Syntax

```json
{
    "CreatedBy": {
        "DomainId": "string",
        "UserProfileArn": "string",
        "UserProfileName": "string"
    },
    "CreationTime": number,
    "DisplayName": "string",
    "ExperimentName": "string",
    "LastModifiedBy": {
        "DomainId": "string",
        "UserProfileArn": "string",
        "UserProfileName": "string"
    },
    "LastModifiedTime": number,
    "Source": {
        "SourceArn": "string",
        "SourceType": "string"
    },
    "TrialArn": "string",
    "TrialName": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**CreatedBy (p. 243)**

Who created the trial.

Type: UserContext (p. 746) object

**CreationTime (p. 243)**

When the trial was created.

Type: Timestamp

**DisplayName (p. 243)**

The name of the trial as displayed. If `DisplayName` isn't specified, `TrialName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)$

**ExperimentName (p. 243)**

The name of the experiment the trial is part of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)$

**LastModifiedBy (p. 243)**

Who last modified the trial.

Type: UserContext (p. 746) object

**LastModifiedTime (p. 243)**

When the trial was last modified.

Type: Timestamp

**Source (p. 243)**

The Amazon Resource Name (ARN) of the source and, optionally, the job type.

Type: TrialSource (p. 738) object

**TrialArn (p. 243)**

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial/?

**TrialName (p. 243)**

The name of the trial.

Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])* 

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNot_found

Resource being access is not found.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeTrialComponent
Service: Amazon SageMaker Service
Provides a list of a trials component's properties.

Request Syntax

```
{
    "TrialComponentName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**TrialComponentName (p. 246)**

The name of the trial component to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9][-]*[a-zA-Z0-9] Its

Required: Yes

Response Syntax

```
{
    "CreatedBy": {
        "DomainId": "string",
        "UserProfileArn": "string",
        "UserProfileName": "string"
    },
    "CreationTime": number,
    "DisplayName": "string",
    "EndTime": number,
    "InputArtifacts": {
        "string": {
            "MediaType": "string",
            "Value": "string"
        }
    },
    "LastModifiedBy": {
        "DomainId": "string",
        "UserProfileArn": "string",
        "UserProfileName": "string"
    },
    "LastModifiedTime": number,
    "Metrics": [
        {"Avg": number,
        "Count": number,
        "Last": number,
        "Max": number,
        "Min": number}
    ]
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**CreatedBy (p. 246)**

Who created the component.

Type: UserContext (p. 746) object

**CreationTime (p. 246)**

When the component was created.

Type: Timestamp

**DisplayName (p. 246)**

The name of the component as displayed. If DisplayName isn't specified, TrialComponentName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  

**EndTime (p. 246)**

When the component ended.
Type: Timestamp

**InputArtifacts (p. 246)**

The input artifacts of the component.

Type: String to `TrialComponentArtifact (p. 727)` object map

Key Length Constraints: Maximum length of 64.

Key Pattern: . *

**LastModifiedBy (p. 246)**

Who last modified the component.

Type: `UserContext (p. 746)` object

**LastModifiedTime (p. 246)**

When the component was last modified.

Type: Timestamp

**Metrics (p. 246)**

The metrics for the component.

Type: Array of `TrialComponentMetricSummary (p. 728)` objects

**OutputArtifacts (p. 246)**

The output artifacts of the component.

Type: String to `TrialComponentArtifact (p. 727)` object map

Key Length Constraints: Maximum length of 64.

Key Pattern: . *

**Parameters (p. 246)**

The hyperparameters of the component.

Type: String to `TrialComponentParameterValue (p. 730)` object map

Key Length Constraints: Maximum length of 256.

Key Pattern: . *

**Source (p. 246)**

The Amazon Resource Name (ARN) of the source and, optionally, the job type.

Type: `TrialComponentSource (p. 733)` object

**StartTime (p. 246)**

When the component started.

Type: Timestamp

**Status (p. 246)**

The status of the component. States include:

- InProgress
- Completed
• Failed

Type: TrialComponentStatus (p. 735) object

**TrialComponentArn (p. 246)**

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial-component/.*

**TrialComponentName (p. 246)**

The name of the trial component.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*
DescribeUserProfile
Service: Amazon SageMaker Service

Describes the user profile.

Request Syntax

```json
{
   "DomainId": "string",
   "UserProfileName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**DomainId (p. 250)**

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

**UserProfileName (p. 250)**

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*.

Required: Yes

Response Syntax

```json
{
   "CreationTime": number,
   "DomainId": "string",
   "FailureReason": "string",
   "HomeEfsFileSystemUid": "string",
   "LastModifiedTime": number,
   "SingleSignOnUserIdentifier": "string",
   "SingleSignOnUserValue": "string",
   "Status": "string",
   "UserProfileArn": "string",
   "UserProfileName": "string",
   "UserSettings": {
      "ExecutionRole": "string",
      "JupyterServerAppSettings": {
         "DefaultResourceSpec": {
            "EnvironmentArn": "string",
```

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"InstanceType": "string"
},

"KernelGatewayAppSettings": {
  "DefaultResourceSpec": {
    "EnvironmentArn": "string",
    "InstanceType": "string"
  }
},

"SecurityGroups": [ "string" ],

"SharingSettings": {
  "NotebookOutputOption": "string",
  "S3KmsKeyId": "string",
  "S3OutputPath": "string"
},

"TensorBoardAppSettings": {
  "DefaultResourceSpec": {
    "EnvironmentArn": "string",
    "InstanceType": "string"
  }
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**CreationTime (p. 250)**

The creation time.

Type: Timestamp

**DomainId (p. 250)**

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

**FailureReason (p. 250)**

The failure reason.

Type: String

Length Constraints: Maximum length of 1024.

**HomeEfsFileSystemUid (p. 250)**

The homa Amazon Elastic File System (EFS) Uid.

Type: String

Length Constraints: Maximum length of 10.

Pattern: \d+

**LastModifiedTime (p. 250)**

The last modified time.
Type: Timestamp

**SingleSignOnUserIdentifer (p. 250)**

The SSO user identifier.

Type: String

Pattern: *UserName*

**SingleSignOnUserValue (p. 250)**

The SSO user value.

Type: String

Length Constraints: Maximum length of 256.

**Status (p. 250)**

The status.

Type: String

Valid Values: Deleting | Failed | InService | Pending

**UserProfileArn (p. 250)**

The user profile Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: *arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:user-profile/.*

**UserProfileName (p. 250)**

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: *^[a-zA-Z0-9\-]*\-*[a-zA-Z0-9]*$

**UserSettings (p. 250)**

A collection of settings.

Type: *UserSettings (p. 749) object*

---

**Errors**

For information about the errors that are common to all actions, see *Common Errors (p. 759).*

**ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

---

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DescribeWorkforce
Service: Amazon SageMaker Service

Lists private workforce information, including workforce name, Amazon Resource Name (ARN), and, if applicable, allowed IP address ranges (CIDRs). Allowable IP address ranges are the IP addresses that workers can use to access tasks.

**Important**
This operation applies only to private workforces.

Request Syntax

```json
{
  "WorkforceName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**WorkforceName** (p. 254)

The name of the private workforce whose access you want to restrict. `WorkforceName` is automatically set to `default` when a workforce is created and cannot be modified.

Type: String


Pattern: `^[a-zA-Z0-9](-[a-zA-Z0-9]+)*$`

Required: Yes

Response Syntax

```json
{
  "Workforce": {
    "LastUpdatedDate": number,
    "SourceIpConfig": {
      "Cidrs": [ "string" ]
    },
    "WorkforceArn": "string",
    "WorkforceName": "string"
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
**Workforce (p. 254)**

A single private workforce, which is automatically created when you create your first private work team. You can create one private work force in each AWS Region. By default, any workforce-related API operation used in a specific region will apply to the workforce created in that region. To learn how to create a private workforce, see Create a Private Workforce.

Type: Workforce (p. 753) object

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeWorkteam

Service: Amazon SageMaker Service

Gets information about a specific work team. You can see information such as the create date, the last updated date, membership information, and the work team's Amazon Resource Name (ARN).

Request Syntax

```
{
    "WorkteamName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**WorkteamName (p. 256)**

The name of the work team to return a description of.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*

Required: Yes

Response Syntax

```
{
    "Workteam": {
        "CreateDate": number,
        "Description": "string",
        "LastUpdatedDate": number,
        "MemberDefinitions": [
            {
                "CognitoMemberDefinition": {
                    "ClientId": "string",
                    "UserGroup": "string",
                    "UserPool": "string"
                }
            }
        ],
        "NotificationConfiguration": {
            "NotificationTopicArn": "string"
        },
        "ProductListingIds": [ "string" ],
        "SubDomain": "string",
        "WorkteamArn": "string",
        "WorkteamName": "string"
    }
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

Workteam (p. 256)

A Workteam instance that contains information about the work team.

Type: Workteam (p. 755) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DisassociateTrialComponent

Service: Amazon SageMaker Service

Disassociates a trial component from a trial. This doesn't effect other trials the component is associated with. Before you can delete a component, you must disassociate the component from all trials it is associated with. To associate a trial component with a trial, call the AssociateTrialComponent (p. 11) API.

To get a list of the trials a component is associated with, use the Search (p. 363) API. Specify ExperimentTrialComponent for the Resource parameter. The list appears in the response under Results.TrialComponent.Parents.

Request Syntax

```
{
   "TrialComponentName": "string",
   "TrialName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**TrialComponentName (p. 258)**

The name of the component to disassociate from the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

**TrialName (p. 258)**

The name of the trial to disassociate from.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

Response Syntax

```
{
   "TrialArn": "string",
   "TrialComponentArn": "string"
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**TrialArn (p. 258)**

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial/.*`

**TrialComponentArn (p. 258)**

The ARN of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial-component/.*`

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceNot Found**

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
GetSearchSuggestions

Service: Amazon SageMaker Service

An auto-complete API for the search functionality in the Amazon SageMaker console. It returns suggestions of possible matches for the property name to use in Search queries. Provides suggestions for HyperParameters, Tags, and Metrics.

Request Syntax

```json
{
   "Resource": "string",
   "SuggestionQuery": {
      "PropertyNameQuery": {
         "PropertyNameHint": "string"
      }
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

Resource (p. 260)

The name of the Amazon SageMaker resource to Search for.

Type: String

Valid Values: TrainingJob | Experiment | ExperimentTrial | ExperimentTrialComponent

Required: Yes

SuggestionQuery (p. 260)

Limits the property names that are included in the response.

Type: SuggestionQuery (p. 690) object

Required: No

Response Syntax

```json
{
   "PropertyNameSuggestions": [
      {
         "PropertyName": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**PropertyNameSuggestions (p. 260)**

A list of property names for a Resource that match a SuggestionQuery.

Type: Array of PropertyNameSuggestion (p. 662) objects

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListAlgorithms

Service: Amazon SageMaker Service

Lists the machine learning algorithms that have been created.

Request Syntax

```json
{
    "CreationTimeAfter": number,
    "CreationTimeBefore": number,
    "MaxResults": number,
    "NameContains": "string",
    "NextToken": "string",
    "SortBy": "string",
    "SortOrder": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreationTimeAfter (p. 262)**

A filter that returns only algorithms created after the specified time (timestamp).

Type: Timestamp

Required: No

**CreationTimeBefore (p. 262)**

A filter that returns only algorithms created before the specified time (timestamp).

Type: Timestamp

Required: No

**MaxResults (p. 262)**

The maximum number of algorithms to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NameContains (p. 262)**

A string in the algorithm name. This filter returns only algorithms whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-]+
Required: No

**NextToken (p. 262)**

If the response to a previous ListAlgorithms request was truncated, the response includes a NextToken. To retrieve the next set of algorithms, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Required: No

**SortBy (p. 262)**

The parameter by which to sort the results. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime

Required: No

**SortOrder (p. 262)**

The sort order for the results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

**Response Syntax**

```json
{
    "AlgorithmSummaryList": [
        {
            "AlgorithmArn": "string",
            "AlgorithmDescription": "string",
            "AlgorithmName": "string",
            "AlgorithmStatus": "string",
            "CreationTime": number
        }
    ],
    "NextToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**AlgorithmSummaryList (p. 263)**

> An array of AlgorithmSummary objects, each of which lists an algorithm.

Type: Array of AlgorithmSummary (p. 448) objects
NextToken (p. 263)

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of algorithms, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListApps
Service: Amazon SageMaker Service

Lists apps.

Request Syntax

```
{
  "DomainIdEquals": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "UserProfileNameEquals": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**DomainIdEquals (p. 265)**

A parameter to search for the domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: No

**MaxResults (p. 265)**

Returns a list up to a specified limit.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextToken (p. 265)**

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Required: No

**SortBy (p. 265)**

The parameter by which to sort the results. The default is CreationTime.

Type: String
Valid Values: CreationTime

Required: No

**SortOrder (p. 265)**

The sort order for the results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

**UserProfileNameEquals (p. 265)**

A parameter to search by user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  

Required: No

### Response Syntax

```
{
  "Apps": [
    {
      "AppName": "string",
      "AppType": "string",
      "CreationTime": number,
      "DomainId": "string",
      "Status": "string",
      "UserProfileName": "string"
    }
  ],
  "NextToken": "string"
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Apps (p. 266)**

The list of apps.

Type: Array of AppDetails (p. 459) objects

**NextToken (p. 266)**

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.
Pattern: .*

Errors
For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListAutoMLJobs
Service: Amazon SageMaker Service

Request a list of jobs.

Request Syntax

```json
{
    "CreationTimeAfter": number,
    "CreationTimeBefore": number,
    "LastModifiedTimeAfter": number,
    "LastModifiedTimeBefore": number,
    "MaxResults": number,
    "NameContains": "string",
    "NextToken": "string",
    "SortBy": "string",
    "SortOrder": "string",
    "StatusEquals": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreationTimeAfter (p. 268)**

Request a list of jobs, using a filter for time.

Type: Timestamp

Required: No

**CreationTimeBefore (p. 268)**

Request a list of jobs, using a filter for time.

Type: Timestamp

Required: No

**LastModifiedTimeAfter (p. 268)**

Request a list of jobs, using a filter for time.

Type: Timestamp

Required: No

**LastModifiedTimeBefore (p. 268)**

Request a list of jobs, using a filter for time.

Type: Timestamp

Required: No

**MaxResults (p. 268)**

Request a list of jobs up to a specified limit.
Type: Integer
Valid Range: Minimum value of 1. Maximum value of 100.
Required: No

NameContains (p. 268)
Request a list of jobs, using a search filter for name.
Type: String
Length Constraints: Maximum length of 63.
Pattern: [a-zA-Z0-9\-\_]+
Required: No

NextToken (p. 268)
If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.
Type: String
Length Constraints: Maximum length of 8192.
Pattern: .*
Required: No

SortBy (p. 268)
The parameter by which to sort the results. The default is AutoMLJobName.
Type: String
Valid Values: Name | CreationTime | Status
Required: No

SortOrder (p. 268)
The sort order for the results. The default is Descending.
Type: String
Valid Values: Ascending | Descending
Required: No

StatusEquals (p. 268)
Request a list of jobs, using a filter for status.
Type: String
Valid Values: Completed | InProgress | Failed | Stopped | Stopping
Required: No

Response Syntax
{

"AutoMLJobSummaries": [  
  {  
    "AutoMLJobArn": "string",  
    "AutoMLJobName": "string",  
    "AutoMLJobSecondaryStatus": "string",  
    "AutoMLJobStatus": "string",  
    "CreationTime": number,  
    "EndTime": number,  
    "FailureReason": "string",  
    "LastModifiedTime": number  
  }  
],  
"NextToken": "string"  
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**AutoMLJobSummaries (p. 269)**

Returns a summary list of jobs.

Type: Array of AutoMLJobSummary (p. 472) objects

**NextToken (p. 269)**

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListCandidatesForAutoMLJob

Service: Amazon SageMaker Service

List the Candidates created for the job.

Request Syntax

```json
{
  "AutoMLJobName": "string",
  "CandidateNameEquals": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**AutoMLJobName (p. 271)**

List the Candidates created for the job by providing the job's name.

Type: String


Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

**CandidateNameEquals (p. 271)**

List the Candidates for the job and filter by candidate name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

**MaxResults (p. 271)**

List the job's Candidates up to a specified limit.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextToken (p. 271)**

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String
Length Constraints: Maximum length of 8192.
Pattern: .*
Required: No

**SortBy (p. 271)**
The parameter by which to sort the results. The default is Descending.
Type: String
Valid Values: CreationTime | Status | FinalObjectiveMetricValue
Required: No

**SortOrder (p. 271)**
The sort order for the results. The default is Ascending.
Type: String
Valid Values: Ascending | Descending
Required: No

**StatusEquals (p. 271)**
List the Candidates for the job and filter by status.
Type: String
Valid Values: Completed | InProgress | Failed | Stopped | Stopping
Required: No

**Response Syntax**

```
{
  "Candidates": [
    {
      "CandidateName": "string",
      "CandidateStatus": "string",
      "CandidateSteps": [
        {
          "CandidateStepArn": "string",
          "CandidateStepName": "string",
          "CandidateStepType": "string"
        }
      ],
      "CreationTime": number,
      "EndTime": number,
      "FailureReason": "string",
      "FinalAutoMLJobObjectiveMetric": {
        "MetricName": "string",
        "Type": "string",
        "Value": number
      },
      "InferenceContainers": [
        {
          "Environment": {
            "string": "string"
          },
          "Image": "string"
        }
      ]
    }
  ]
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Candidates (p. 272)

Summaries about the Candidates.

Type: Array of AutoMLCandidate (p. 462) objects

NextToken (p. 272)

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListCodeRepositories

Service: Amazon SageMaker Service

Gets a list of the Git repositories in your account.

Request Syntax

```
{
    "CreationTimeAfter": number,
    "CreationTimeBefore": number,
    "LastModifiedTimeAfter": number,
    "LastModifiedTimeBefore": number,
    "MaxResults": number,
    "NameContains": "string",
    "NextToken": "string",
    "SortBy": "string",
    "SortOrder": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreationTimeAfter (p. 275)**

A filter that returns only Git repositories that were created after the specified time.

Type: Timestamp

Required: No

**CreationTimeBefore (p. 275)**

A filter that returns only Git repositories that were created before the specified time.

Type: Timestamp

Required: No

**LastModifiedTimeAfter (p. 275)**

A filter that returns only Git repositories that were last modified after the specified time.

Type: Timestamp

Required: No

**LastModifiedTimeBefore (p. 275)**

A filter that returns only Git repositories that were last modified before the specified time.

Type: Timestamp

Required: No

**MaxResults (p. 275)**

The maximum number of Git repositories to return in the response.
Type: Integer
Valid Range: Minimum value of 1. Maximum value of 100.
Required: No

**NameContains** *(p. 275)*
A string in the Git repositories name. This filter returns only repositories whose name contains the specified string.
Type: String
Length Constraints: Maximum length of 63.
Pattern: [a-zA-Z0-9-]+
Required: No

**NextToken** *(p. 275)*
If the result of a `ListCodeRepositoriesOutput` request was truncated, the response includes a `NextToken`. To get the next set of Git repositories, use the token in the next request.
Type: String
Length Constraints: Maximum length of 8192.
Pattern: .*
Required: No

**SortBy** *(p. 275)*
The field to sort results by. The default is *Name*.
Type: String
Valid Values: Name | CreationTime | LastModifiedTime
Required: No

**SortOrder** *(p. 275)*
The sort order for results. The default is *Ascending*.
Type: String
Valid Values: Ascending | Descending
Required: No

**Response Syntax**

```json
{
    "CodeRepositorySummaryList": [
        {
            "CodeRepositoryArn": "string",
            "CodeRepositoryName": "string",
            "CreationTime": number,
            "GitConfig": {
                "Branch": "string",
                "RepositoryUrl": "string",
            }
        }
    ]
}
```
If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**CodeRepositorySummaryList (p. 276)**

Gets a list of summaries of the Git repositories. Each summary specifies the following values for the repository:
- Name
- Amazon Resource Name (ARN)
- Creation time
- Last modified time
- Configuration information, including the URL location of the repository and the ARN of the AWS Secrets Manager secret that contains the credentials used to access the repository.

Type: Array of CodeRepositorySummary (p. 486) objects

**NextToken (p. 276)**

If the result of a `ListCodeRepositoriesOutput` request was truncated, the response includes a NextToken. To get the next set of Git repositories, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListCompilationJobs
Service: Amazon SageMaker Service

Lists model compilation jobs that satisfy various filters.

To create a model compilation job, use CreateCompilationJob (p. 27). To get information about a particular model compilation job you have created, use DescribeCompilationJob (p. 166).

Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreationTimeAfter (p. 279)**

A filter that returns the model compilation jobs that were created after a specified time.

Type: Timestamp

Required: No

**CreationTimeBefore (p. 279)**

A filter that returns the model compilation jobs that were created before a specified time.

Type: Timestamp

Required: No

**LastModifiedTimeAfter (p. 279)**

A filter that returns the model compilation jobs that were modified after a specified time.

Type: Timestamp

Required: No

**LastModifiedTimeBefore (p. 279)**

A filter that returns the model compilation jobs that were modified before a specified time.

Type: Timestamp

Required: No
MaxResults (p. 279)

The maximum number of model compilation jobs to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NameContains (p. 279)

A filter that returns the model compilation jobs whose name contains a specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-]+

Required: No

NextToken (p. 279)

If the result of the previous ListCompilationJobs request was truncated, the response includes a NextToken. To retrieve the next set of model compilation jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Required: No

SortBy (p. 279)

The field by which to sort results. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

SortOrder (p. 279)

The sort order for results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

StatusEquals (p. 279)

A filter that retrieves model compilation jobs with a specific DescribeCompilationJob:CompilationJobStatus (p. 167) status.

Type: String

Valid Values: INPROGRESS | COMPLETED | FAILED | STARTING | STOPPING | STOPPED

Required: No
Response Syntax

```json
{
   "CompilationJobSummaries": [
      {
         "CompilationEndTime": number,
         "CompilationJobArn": "string",
         "CompilationJobName": "string",
         "CompilationJobStatus": "string",
         "CompilationStartTime": number,
         "CreationTime": number,
         "LastModifiedTime": number
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**CompilationJobSummaries (p. 281)**

An array of [CompilationJobSummary (p. 490)] objects, each describing a model compilation job.

**Type:** Array of [CompilationJobSummary (p. 490)] objects

**NextToken (p. 281)**

If the response is truncated, Amazon SageMaker returns this `NextToken`. To retrieve the next set of model compilation jobs, use this token in the next request.

**Type:** String

**Length Constraints:** Maximum length of 8192.

**Pattern:** .*

Errors

For information about the errors that are common to all actions, see [Common Errors (p. 759)].

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListDomains
Service: Amazon SageMaker Service

Lists the domains.

Request Syntax

```
{
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**MaxResults (p. 283)**

Returns a list up to a specified limit.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextToken (p. 283)**

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Required: No

Response Syntax

```
{
   "Domains": [
      {
         "CreationTime": number,
         "DomainArn": "string",
         "DomainId": "string",
         "DomainName": "string",
         "LastModifiedTime": number,
         "Status": "string",
         "Url": "string"
      }
   ],
   "NextToken": "string"
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Domains (p. 283)**

The list of domains.

Type: Array of DomainDetails (p. 511) objects

**NextToken (p. 283)**

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListEndpointConfigs
Service: Amazon SageMaker Service
Lists endpoint configurations.

Request Syntax

```
{
    "CreationTimeAfter": number,
    "CreationTimeBefore": number,
    "MaxResults": number,
    "NameContains": "string",
    "NextToken": "string",
    "SortBy": "string",
    "SortOrder": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreationTimeAfter (p. 285)**

A filter that returns only endpoint configurations with a creation time greater than or equal to the specified time (timestamp).

Type: Timestamp

Required: No

**CreationTimeBefore (p. 285)**

A filter that returns only endpoint configurations created before the specified time (timestamp).

Type: Timestamp

Required: No

**MaxResults (p. 285)**

The maximum number of training jobs to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NameContains (p. 285)**

A string in the endpoint configuration name. This filter returns only endpoint configurations whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.
Pattern: [a-zA-Z0-9-]+  
Required: No

**NextToken (p. 285)**

If the result of the previous ListEndpointConfig request was truncated, the response includes a NextToken. To retrieve the next set of endpoint configurations, use the token in the next request.

Type: String  
Length Constraints: Maximum length of 8192.

Pattern: .*  
Required: No

**SortBy (p. 285)**

The field to sort results by. The default is CreationTime.

Type: String  
Valid Values: Name | CreationTime  
Required: No

**SortOrder (p. 285)**

The sort order for results. The default is Descending.

Type: String  
Valid Values: Ascending | Descending  
Required: No

**Response Syntax**

```json
{
   "EndpointConfigs": [
      {
         "CreationTime": number,
         "EndpointConfigArn": "string",
         "EndpointConfigName": "string"
      },
      ...
   ],
   "NextToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**EndpointConfigs (p. 286)**

An array of endpoint configurations.

Type: Array of EndpointConfigSummary (p. 513) objects
NextToken (p. 286)

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of endpoint configurations, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListEndpoints
Service: Amazon SageMaker Service
Lists endpoints.

Request Syntax

```
{
    "CreationTimeAfter": number,
    "CreationTimeBefore": number,
    "LastModifiedTimeAfter": number,
    "LastModifiedTimeBefore": number,
    "MaxResults": number,
    "NameContains": "string",
    "NextToken": "string",
    "SortBy": "string",
    "SortOrder": "string",
    "StatusEquals": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

CreationTimeAfter (p. 288)

A filter that returns only endpoints with a creation time greater than or equal to the specified time (timestamp).

Type: Timestamp

Required: No

CreationTimeBefore (p. 288)

A filter that returns only endpoints that were created before the specified time (timestamp).

Type: Timestamp

Required: No

LastModifiedTimeAfter (p. 288)

A filter that returns only endpoints that were modified after the specified timestamp.

Type: Timestamp

Required: No

LastModifiedTimeBefore (p. 288)

A filter that returns only endpoints that were modified before the specified timestamp.

Type: Timestamp

Required: No

MaxResults (p. 288)

The maximum number of endpoints to return in the response.
ListEndpoints

**Type**: Integer

**Valid Range**: Minimum value of 1. Maximum value of 100.

**Required**: No

**NameContains (p. 288)**

A string in endpoint names. This filter returns only endpoints whose name contains the specified string.

**Type**: String

**Length Constraints**: Maximum length of 63.

**Pattern**: `[a-zA-Z0-9-]+`

**Required**: No

**NextToken (p. 288)**

If the result of a ListEndpoints request was truncated, the response includes a NextToken. To retrieve the next set of endpoints, use the token in the next request.

**Type**: String

**Length Constraints**: Maximum length of 8192.

**Pattern**: .*

**Required**: No

**SortBy (p. 288)**

Sorts the list of results. The default is CreationTime.

**Type**: String

**Valid Values**: Name | CreationTime | Status

**Required**: No

**SortOrder (p. 288)**

The sort order for results. The default is Descending.

**Type**: String

**Valid Values**: Ascending | Descending

**Required**: No

**StatusEquals (p. 288)**

A filter that returns only endpoints with the specified status.

**Type**: String

**Valid Values**: OutOfService | Creating | Updating | SystemUpdating | RollingBack | InService | Deleting | Failed

**Required**: No

**Response Syntax**

```json
{
}
```
"Endpoints": [
  
  "CreationTime": number,
  "EndpointArn": "string",
  "EndpointName": "string",
  "EndpointStatus": "string",
  "LastModifiedTime": number
  
  ],
  "NextToken": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Endpoints (p. 289)

An array or endpoint objects.

Type: Array of EndpointSummary (p. 516) objects

NextToken (p. 289)

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of training jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListExperiments
Service: Amazon SageMaker Service

Lists all the experiments in your account. The list can be filtered to show only experiments that were created in a specific time range. The list can be sorted by experiment name or creation time.

Request Syntax

```
{
    "CreatedAfter": number,
    "CreatedBefore": number,
    "MaxResults": number,
    "NextToken": "string",
    "SortBy": "string",
    "SortOrder": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreatedAfter (p. 291)**

A filter that returns only experiments created after the specified time.

- Type: Timestamp
- Required: No

**CreatedBefore (p. 291)**

A filter that returns only experiments created before the specified time.

- Type: Timestamp
- Required: No

**MaxResults (p. 291)**

The maximum number of experiments to return in the response. The default value is 10.

- Type: Integer
- Valid Range: Minimum value of 1. Maximum value of 100.
- Required: No

**NextToken (p. 291)**

If the previous call to ListExperiments didn't return the full set of experiments, the call returns a token for getting the next set of experiments.

- Type: String
- Length Constraints: Maximum length of 8192.
- Pattern: .

291
Required: No

**SortBy (p. 291)**

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: Name | CreationTime

Required: No

**SortOrder (p. 291)**

The sort order. The default value is `Descending`.

Type: String

Valid Values: Ascending | Descending

Required: No

### Response Syntax

```json
{
  "ExperimentSummaries": [
    {
      "CreationTime": number,
      "DisplayName": "string",
      "ExperimentArn": "string",
      "ExperimentName": "string",
      "ExperimentSource": {
        "SourceArn": "string",
        "SourceType": "string"
      },
      "LastModifiedTime": number
    },
    ...
  ],
  "NextToken": "string"
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ExperimentSummaries (p. 292)**

A list of the summaries of your experiments.

Type: Array of `ExperimentSummary (p. 522)` objects

**NextToken (p. 292)**

A token for getting the next set of experiments, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*
Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListFlowDefinitions

Service: Amazon SageMaker Service

Returns information about the flow definitions in your account.

Request Syntax

```json
{
    "CreationTimeAfter": number,
    "CreationTimeBefore": number,
    "MaxResults": number,
    "NextToken": "string",
    "SortOrder": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreationTimeAfter (p. 294)**

A filter that returns only flow definitions with a creation time greater than or equal to the specified timestamp.

Type: Timestamp

Required: No

**CreationTimeBefore (p. 294)**

A filter that returns only flow definitions that were created before the specified timestamp.

Type: Timestamp

Required: No

**MaxResults (p. 294)**

The total number of items to return. If the total number of available items is more than the value specified in MaxResults, then a NextToken will be provided in the output that you can use to resume pagination.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextToken (p. 294)**

A token to resume pagination.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*
Required: No

SortOrder (p. 294)
An optional value that specifies whether you want the results sorted in Ascending or Descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

Response Syntax

```json
{
  "FlowDefinitionSummaries": [
    {
      "CreationTime": number,
      "FailureReason": "string",
      "FlowDefinitionArn": "string",
      "FlowDefinitionName": "string",
      "FlowDefinitionStatus": "string"
    }
  ],
  "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FlowDefinitionSummaries (p. 295)
An array of objects describing the flow definitions.

Type: Array of FlowDefinitionSummary (p. 532) objects

NextToken (p. 295)
A token to resume pagination.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListHumanTaskUis

Service: Amazon SageMaker Service

Returns information about the human task user interfaces in your account.

Request Syntax

```json
{
    "CreationTimeAfter": number,
    "CreationTimeBefore": number,
    "MaxResults": number,
    "NextToken": "string",
    "SortOrder": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

CreationTimeAfter (p. 297)

A filter that returns only human task user interfaces with a creation time greater than or equal to the specified timestamp.

Type: Timestamp

Required: No

CreationTimeBefore (p. 297)

A filter that returns only human task user interfaces that were created before the specified timestamp.

Type: Timestamp

Required: No

MaxResults (p. 297)

The total number of items to return. If the total number of available items is more than the value specified in MaxResults, then a NextToken will be provided in the output that you can use to resume pagination.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken (p. 297)

A token to resume pagination.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: . *
Required: No

**SortOrder (p. 297)**

An optional value that specifies whether you want the results sorted in Ascending or Descending order.

- **Type:** String
- **Valid Values:** Ascending | Descending
- **Required:** No

**Response Syntax**

```json
{
   "HumanTaskUiSummaries": [
      {
         "CreationTime": number,
         "HumanTaskUiArn": "string",
         "HumanTaskUiName": "string"
      }
   ],
   "NextToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**HumanTaskUiSummaries (p. 298)**

An array of objects describing the human task user interfaces.

- **Type:** Array of `HumanTaskUiSummary (p. 551)` objects

**NextToken (p. 298)**

A token to resume pagination.

- **Type:** String
- **Length Constraints:** Maximum length of 8192.
- **Pattern:** .*

**Errors**

For information about the errors that are common to all actions, see `Common Errors (p. 759)`.

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListHyperParameterTuningJobs

Service: Amazon SageMaker Service

Gets a list of HyperParameterTuningJobSummary (p. 565) objects that describe the hyperparameter tuning jobs launched in your account.

Request Syntax

```
{
   "CreationTimeAfter": number,
   "CreationTimeBefore": number,
   "LastModifiedTimeAfter": number,
   "LastModifiedTimeBefore": number,
   "MaxResults": number,
   "NameContains": "string",
   "NextToken": "string",
   "SortBy": "string",
   "SortOrder": "string",
   "StatusEquals": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

CreationTimeAfter (p. 300)

A filter that returns only tuning jobs that were created after the specified time.

Type: Timestamp

Required: No

CreationTimeBefore (p. 300)

A filter that returns only tuning jobs that were created before the specified time.

Type: Timestamp

Required: No

LastModifiedTimeAfter (p. 300)

A filter that returns only tuning jobs that were modified after the specified time.

Type: Timestamp

Required: No

LastModifiedTimeBefore (p. 300)

A filter that returns only tuning jobs that were modified before the specified time.

Type: Timestamp

Required: No

MaxResults (p. 300)

The maximum number of tuning jobs to return. The default value is 10.
Type: Integer
Valid Range: Minimum value of 1. Maximum value of 100.
Required: No

NameContains (p. 300)
A string in the tuning job name. This filter returns only tuning jobs whose name contains the specified string.
Type: String
Length Constraints: Maximum length of 63.
Pattern: \[a-zA-Z0-9\-\]+
Required: No

NextToken (p. 300)
If the result of the previous ListHyperParameterTuningJobs request was truncated, the response includes a NextToken. To retrieve the next set of tuning jobs, use the token in the next request.
Type: String
Length Constraints: Maximum length of 8192.
Pattern: .*
Required: No

SortBy (p. 300)
The field to sort results by. The default is Name.
Type: String
Valid Values: Name | Status | CreationTime
Required: No

SortOrder (p. 300)
The sort order for results. The default is Ascending.
Type: String
Valid Values: Ascending | Descending
Required: No

StatusEquals (p. 300)
A filter that returns only tuning jobs with the specified status.
Type: String
Valid Values: Completed | InProgress | Failed | Stopped | Stopping
Required: No

Response Syntax

```json
{
```
"HyperParameterTuningJobSummaries": [
  {
    "CreationTime": number,
    "HyperParameterTuningEndTime": number,
    "HyperParameterTuningJobArn": "string",
    "HyperParameterTuningJobName": "string",
    "HyperParameterTuningJobStatus": "string",
    "LastModifiedTime": number,
    "ObjectiveStatusCounters": {
      "Failed": number,
      "Pending": number,
      "Succeeded": number
    },
    "ResourceLimits": {
      "MaxNumberOfTrainingJobs": number,
      "MaxParallelTrainingJobs": number
    },
    "Strategy": "string",
    "TrainingJobStatusCounters": {
      "Completed": number,
      "InProgress": number,
      "NonRetryableError": number,
      "RetryableError": number,
      "Stopped": number
    }
  }
],
"NextToken": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**HyperParameterTuningJobSummaries (p. 301)**

A list of HyperParameterTuningJobSummary (p. 565) objects that describe the tuning jobs that the ListHyperParameterTuningJobs request returned.

Type: Array of HyperParameterTuningJobSummary (p. 565) objects

**NextToken (p. 301)**

If the result of this ListHyperParameterTuningJobs request was truncated, the response includes a NextToken. To retrieve the next set of tuning jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListLabelingJobs
Service: Amazon SageMaker Service

Gets a list of labeling jobs.

Request Syntax

```json
{
"CreationTimeAfter": number,
"CreationTimeBefore": number,
"LastModifiedTimeAfter": number,
"LastModifiedTimeBefore": number,
"MaxResults": number,
"NameContains": string,
"NextToken": string,
"SortBy": string,
"SortOrder": string,
"StatusEquals": string
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreationTimeAfter (p. 304)**

A filter that returns only labeling jobs created after the specified time (timestamp).

Type: Timestamp

Required: No

**CreationTimeBefore (p. 304)**

A filter that returns only labeling jobs created before the specified time (timestamp).

Type: Timestamp

Required: No

**LastModifiedTimeAfter (p. 304)**

A filter that returns only labeling jobs modified after the specified time (timestamp).

Type: Timestamp

Required: No

**LastModifiedTimeBefore (p. 304)**

A filter that returns only labeling jobs modified before the specified time (timestamp).

Type: Timestamp

Required: No

**MaxResults (p. 304)**

The maximum number of labeling jobs to return in each page of the response.
Type: Integer
Valid Range: Minimum value of 1. Maximum value of 100.
Required: No

**NameContains (p. 304)**
A string in the labeling job name. This filter returns only labeling jobs whose name contains the specified string.
Type: String
Length Constraints: Maximum length of 63.
Pattern: [a-zA-Z0-9\-\_]+
Required: No

**NextToken (p. 304)**
If the result of the previous `ListLabelingJobs` request was truncated, the response includes a NextToken. To retrieve the next set of labeling jobs, use the token in the next request.
Type: String
Length Constraints: Maximum length of 8192.
Pattern: .*
Required: No

**SortBy (p. 304)**
The field to sort results by. The default is `CreationTime`.
Type: String
Valid Values: Name | CreationTime | Status
Required: No

**SortOrder (p. 304)**
The sort order for results. The default is Ascending.
Type: String
Valid Values: Ascending | Descending
Required: No

**StatusEquals (p. 304)**
A filter that retrieves only labeling jobs with a specific status.
Type: String
Valid Values: InProgress | Completed | Failed | Stopping | Stopped
Required: No

**Response Syntax**

```json
{
```
"LabelingJobSummaryList": [
  {
    "AnnotationConsolidationLambdaArn": "string",
    "CreationTime": number,
    "FailureReason": "string",
    "InputConfig": {
      "DataAttributes": {
        "ContentClassifiers": [ "string" ]
      },
      "DataSource": {
        "S3DataSource": {
          "ManifestS3Uri": "string"
        }
      }
    },
    "LabelCounters": {
      "FailedNonRetryableError": number,
      "HumanLabeled": number,
      "MachineLabeled": number,
      "TotalLabeled": number,
      "Unlabeled": number
    },
    "LabelingJobArn": "string",
    "LabelingJobName": "string",
    "LabelingJobOutput": {
      "FinalActiveLearningModelArn": "string",
      "OutputDatasetS3Uri": "string"
    },
    "LabelingJobStatus": "string",
    "LastModifiedTime": number,
    "PreHumanTaskLambdaArn": "string",
    "WorkteamArn": "string"
  }
],
"NextToken": "string"
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**LabelingJobSummaryList (p. 305)**

An array of LabelingJobSummary objects, each describing a labeling job.

Type: Array of LabelingJobSummary (p. 593) objects

**NextToken (p. 305)**

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of labeling jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListLabelingJobsForWorkteam

Service: Amazon SageMaker Service

Gets a list of labeling jobs assigned to a specified work team.

Request Syntax

```
{
   "CreationTimeAfter": number,
   "CreationTimeBefore": number,
   "JobReferenceCodeContains": "string",
   "MaxResults": number,
   "NextToken": "string",
   "SortBy": "string",
   "SortOrder": "string",
   "WorkteamArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreationTimeAfter (p. 308)**

A filter that returns only labeling jobs created after the specified time (timestamp).

Type: Timestamp

Required: No

**CreationTimeBefore (p. 308)**

A filter that returns only labeling jobs created before the specified time (timestamp).

Type: Timestamp

Required: No

**JobReferenceCodeContains (p. 308)**

A filter the limits jobs to only the ones whose job reference code contains the specified string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: No

**MaxResults (p. 308)**

The maximum number of labeling jobs to return in each page of the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No
NextToken (p. 308)

If the result of the previous ListLabelingJobsForWorkteam request was truncated, the response includes a NextToken. To retrieve the next set of labeling jobs, use the token in the next request.

Type: String
Length Constraints: Maximum length of 8192.
Pattern: .*
Required: No

SortBy (p. 308)

The field to sort results by. The default is CreationTime.

Type: String
Valid Values: CreationTime
Required: No

SortOrder (p. 308)

The sort order for results. The default is Ascending.

Type: String
Valid Values: Ascending | Descending
Required: No

WorkteamArn (p. 308)

The Amazon Resource Name (ARN) of the work team for which you want to see labeling jobs for.

Type: String
Length Constraints: Maximum length of 256.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:workteam/.*
Required: Yes

Response Syntax

```json
{
  "LabelingJobSummaryList": [
    {
      "CreationTime": number,
      "JobReferenceCode": "string",
      "LabelCounters": {
        "HumanLabeled": number,
        "PendingHuman": number,
        "Total": number
      },
      "LabelingJobName": "string",
      "NumberOfHumanWorkersPerDataObject": number,
      "WorkRequesterAccountId": "string"
    }
  ],
  "NextToken": "string"
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**LabelingJobSummaryList (p. 309)**

An array of LabelingJobSummary objects, each describing a labeling job.

Type: Array of LabelingJobForWorkteamSummary (p. 585) objects

**NextToken (p. 309)**

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of labeling jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
**ListModelPackages**
Service: Amazon SageMaker Service

Lists the model packages that have been created.

**Request Syntax**

```json
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreationTimeAfter (p. 311)**

A filter that returns only model packages created after the specified time (timestamp).

Type: Timestamp

Required: No

**CreationTimeBefore (p. 311)**

A filter that returns only model packages created before the specified time (timestamp).

Type: Timestamp

Required: No

**MaxResults (p. 311)**

The maximum number of model packages to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NameContains (p. 311)**

A string in the model package name. This filter returns only model packages whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-]+
Required: No

**NextToken (p. 311)**

If the response to a previous `ListModelPackages` request was truncated, the response includes a `NextToken`. To retrieve the next set of model packages, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Required: No

**SortBy (p. 311)**

The parameter by which to sort the results. The default is `CreationTime`.

Type: String

Valid Values: Name | CreationTime

Required: No

**SortOrder (p. 311)**

The sort order for the results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

**Response Syntax**

```
{
"ModelPackageSummaryList": [
{
"CreationTime": number,
"ModelPackageArn": "string",
"ModelPackageDescription": "string",
"ModelPackageName": "string",
"ModelPackageStatus": "string"
}
],
"NextToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ModelPackageSummaryList (p. 312)**

An array of `ModelPackageSummary` objects, each of which lists a model package.

Type: Array of `ModelPackageSummary` (p. 604) objects
**NextToken (p. 312)**

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of model packages, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: . *

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListModels
Service: Amazon SageMaker Service

Lists models created with the CreateModel (p. 61) API.

Request Syntax

```json
{
   "CreationTimeAfter": number,
   "CreationTimeBefore": number,
   "MaxResults": number,
   "NameContains": "string",
   "NextToken": "string",
   "SortBy": "string",
   "SortOrder": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreationTimeAfter (p. 314)**

A filter that returns only models with a creation time greater than or equal to the specified time (timestamp).

Type: Timestamp

Required: No

**CreationTimeBefore (p. 314)**

A filter that returns only models created before the specified time (timestamp).

Type: Timestamp

Required: No

**MaxResults (p. 314)**

The maximum number of models to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NameContains (p. 314)**

A string in the training job name. This filter returns only models in the training job whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.
Pattern: \[a-zA-Z0-9-\]+\n
Required: No

**NextToken (p. 314)**

If the response to a previous ListModels request was truncated, the response includes a NextToken. To retrieve the next set of models, use the token in the next request.

Type: String
Length Constraints: Maximum length of 8192.

Pattern: \.*
Required: No

**SortBy (p. 314)**

Sorts the list of results. The default is CreationTime.

Type: String
Valid Values: Name \| CreationTime
Required: No

**SortOrder (p. 314)**

The sort order for results. The default is Descending.

Type: String
Valid Values: Ascending \| Descending
Required: No

**Response Syntax**

```json
{  "Models": [    {      "CreationTime": number,      "ModelArn": "string",      "ModelName": "string"    }  ],  "NextToken": "string" }
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**Models (p. 315)**

An array of ModelSummary objects, each of which lists a model.

Type: Array of ModelSummary (p. 608) objects
NextToken (p. 315)

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of models, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: . *

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListMonitoringExecutions
Service: Amazon SageMaker Service

Returns list of all monitoring job executions.

Request Syntax

```json
{
   "CreationTimeAfter": number,
   "CreationTimeBefore": number,
   "EndpointName": "string",
   "LastModifiedTimeAfter": number,
   "LastModifiedTimeBefore": number,
   "MaxResults": number,
   "MonitoringScheduleName": "string",
   "ScheduledTimeAfter": number,
   "ScheduledTimeBefore": number,
   "SortBy": "string",
   "SortOrder": "string",
   "StatusEquals": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

CreationTimeAfter (p. 317)
A filter that returns only jobs created after a specified time.
Type: Timestamp
Required: No

CreationTimeBefore (p. 317)
A filter that returns only jobs created before a specified time.
Type: Timestamp
Required: No

EndpointName (p. 317)
Name of a specific endpoint to fetch jobs for.
Type: String
Length Constraints: Maximum length of 63.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  
Required: No

LastModifiedTimeAfter (p. 317)
A filter that returns only jobs modified before a specified time.
ListMonitoringExecutions

Type: Timestamp
Required: No

LastModifiedTimeBefore (p. 317)
A filter that returns only jobs modified after a specified time.
Type: Timestamp
Required: No

MaxResults (p. 317)
The maximum number of jobs to return in the response. The default value is 10.
Type: Integer
Valid Range: Minimum value of 1. Maximum value of 100.
Required: No

MonitoringScheduleName (p. 317)
Name of a specific schedule to fetch jobs for.
Type: String
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$
Required: No

NextToken (p. 317)
The token returned if the response is truncated. To retrieve the next set of job executions, use it in the next request.
Type: String
Length Constraints: Maximum length of 8192.
Pattern: .*
Required: No

ScheduledTimeAfter (p. 317)
Filter for jobs scheduled after a specified time.
Type: Timestamp
Required: No

ScheduledTimeBefore (p. 317)
Filter for jobs scheduled before a specified time.
Type: Timestamp
Required: No

SortBy (p. 317)
Whether to sort results by Status, CreationTime, ScheduledTime field. The default is CreationTime.
Type: String

Valid Values: CreationTime | ScheduledTime | Status

Required: No

**SortOrder (p. 317)**

Whether to sort the results in Ascending or Descending order. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

**StatusEquals (p. 317)**

A filter that retrieves only jobs with a specific status.

Type: String

Valid Values: Pending | Completed | CompletedWithViolations | InProgress | Failed | Stopping | Stopped

Required: No

**Response Syntax**

```json
{
  "MonitoringExecutionSummaries": [
    {
      "CreationTime": number,
      "EndpointName": "string",
      "FailureReason": "string",
      "LastModifiedTime": number,
      "MonitoringExecutionStatus": "string",
      "MonitoringScheduleName": "string",
      "ProcessingJobArn": "string",
      "ScheduledTime": number
    }
  ],
  "NextToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**MonitoringExecutionSummaries (p. 319)**

A JSON array in which each element is a summary for a monitoring execution.

Type: Array of MonitoringExecutionSummary (p. 615) objects

**NextToken (p. 319)**

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of jobs, use it in the subsequent request.
Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListMonitoringSchedules
Service: Amazon SageMaker Service

Returns list of all monitoring schedules.

Request Syntax

```json
{
    "CreationTimeAfter": number,
    "CreationTimeBefore": number,
    "EndpointName": "string",
    "LastModifiedTimeAfter": number,
    "LastModifiedTimeBefore": number,
    "MaxResults": number,
    "NameContains": "string",
    "NextToken": "string",
    "SortBy": "string",
    "SortOrder": "string",
    "StatusEquals": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

CreationTimeAfter (p. 321)

A filter that returns only monitoring schedules created after a specified time.

Type: Timestamp

Required: No

CreationTimeBefore (p. 321)

A filter that returns only monitoring schedules created before a specified time.

Type: Timestamp

Required: No

EndpointName (p. 321)

Name of a specific endpoint to fetch schedules for.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]+)*

Required: No

LastModifiedTimeAfter (p. 321)

A filter that returns only monitoring schedules modified after a specified time.

Type: Timestamp
**LastModifiedTimeBefore (p. 321)**
A filter that returns only monitoring schedules modified before a specified time.
- Type: Timestamp
- Required: No

**MaxResults (p. 321)**
The maximum number of jobs to return in the response. The default value is 10.
- Type: Integer
- Valid Range: Minimum value of 1. Maximum value of 100.
- Required: No

**NameContains (p. 321)**
Filter for monitoring schedules whose name contains a specified string.
- Type: String
- Length Constraints: Maximum length of 63.
- Pattern: `[a-zA-Z0-9-\-]+`
- Required: No

**NextToken (p. 321)**
The token returned if the response is truncated. To retrieve the next set of job executions, use it in the next request.
- Type: String
- Length Constraints: Maximum length of 8192.
- Pattern: `.*`
- Required: No

**SortBy (p. 321)**
Whether to sort results by Status, CreationTime, ScheduledTime field. The default is CreationTime.
- Type: String
- Valid Values: Name | CreationTime | Status
- Required: No

**SortOrder (p. 321)**
Whether to sort the results in Ascending or Descending order. The default is Descending.
- Type: String
- Valid Values: Ascending | Descending
- Required: No
**StatusEquals (p. 321)**

A filter that returns only monitoring schedules modified before a specified time.

Type: String

Valid Values: Pending | Failed | Scheduled | Stopped

Required: No

**Response Syntax**

```json
{
  "MonitoringScheduleSummaries": [
    {
      "CreationTime": number,
      "EndpointName": "string",
      "LastModifiedTime": number,
      "MonitoringScheduleArn": "string",
      "MonitoringScheduleName": "string",
      "MonitoringScheduleStatus": "string"
    }
  ],
  "NextToken": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**MonitoringScheduleSummaries (p. 323)**

A JSON array in which each element is a summary for a monitoring schedule.

Type: Array of MonitoringScheduleSummary (p. 625) objects

**NextToken (p. 323)**

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListNotebookInstanceLifecycleConfigs

Service: Amazon SageMaker Service

Lists notebook instance lifestyle configurations created with the
CreateNotebookInstanceLifecycleConfig (p. 78) API.

Request Syntax

```json
{
   "CreationTimeAfter": number,
   "CreationTimeBefore": number,
   "LastModifiedTimeAfter": number,
   "LastModifiedTimeBefore": number,
   "MaxResults": number,
   "NameContains": "string",
   "NextToken": "string",
   "SortBy": "string",
   "SortOrder": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreationTimeAfter (p. 325)**

A filter that returns only lifecycle configurations that were created after the specified time (timestamp).

Type: Timestamp

Required: No

**CreationTimeBefore (p. 325)**

A filter that returns only lifecycle configurations that were created before the specified time (timestamp).

Type: Timestamp

Required: No

**LastModifiedTimeAfter (p. 325)**

A filter that returns only lifecycle configurations that were modified after the specified time (timestamp).

Type: Timestamp

Required: No

**LastModifiedTimeBefore (p. 325)**

A filter that returns only lifecycle configurations that were modified before the specified time (timestamp).

Type: Timestamp

Required: No
Required: No

MaxResults (p. 325)

The maximum number of lifecycle configurations to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NameContains (p. 325)

A string in the lifecycle configuration name. This filter returns only lifecycle configurations whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9-]+

Required: No

NextToken (p. 325)

If the result of a ListNotebookInstanceLifecycleConfigs request was truncated, the response includes a NextToken. To get the next set of lifecycle configurations, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Required: No

SortBy (p. 325)

Sorts the list of results. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime | LastModifiedTime

Required: No

SortOrder (p. 325)

The sort order for results.

Type: String

Valid Values: Ascending | Descending

Required: No

Response Syntax

```json
{
   "NextToken": "string",
}
```
"NotebookInstanceLifecycleConfigs": [ 
  { 
    "CreationTime": number,  
    "LastModifiedTime": number,  
    "NotebookInstanceLifecycleConfigArn": "string",  
    "NotebookInstanceLifecycleConfigName": "string"  
  } 
]}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken (p. 326)

If the response is truncated, Amazon SageMaker returns this token. To get the next set of lifecycle configurations, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .

NotebookInstanceLifecycleConfigs (p. 326)

An array of NotebookInstanceLifecycleConfiguration objects, each listing a lifecycle configuration.

Type: Array of NotebookInstanceLifecycleConfigSummary (p. 631) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListNotebookInstances
Service: Amazon SageMaker Service

Returns a list of the Amazon SageMaker notebook instances in the requester's account in an AWS Region.

Request Syntax

```json
{
  "AdditionalCodeRepositoryEquals": "string",
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "DefaultCodeRepositoryContains": "string",
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "NotebookInstanceLifecycleConfigNameContains": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**AdditionalCodeRepositoryEquals (p. 328)**

A filter that returns only notebook instances with associated with the specified git repository.

Type: String


Pattern: ^https://([^/]+)/?(.*)$|^^[a-zA-Z0-9]+(\-*[a-zA-Z0-9])*

Required: No

**CreationTimeAfter (p. 328)**

A filter that returns only notebook instances that were created after the specified time (timestamp).

Type: Timestamp

Required: No

**CreationTimeBefore (p. 328)**

A filter that returns only notebook instances that were created before the specified time (timestamp).

Type: Timestamp

Required: No
**DefaultCodeRepositoryContains (p. 328)**

A string in the name or URL of a Git repository associated with this notebook instance. This filter returns only notebook instances associated with a git repository with a name that contains the specified string.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[a-zA-Z0-9-]+`

Required: No

**LastModifiedTimeAfter (p. 328)**

A filter that returns only notebook instances that were modified after the specified time (timestamp).

Type: Timestamp

Required: No

**LastModifiedTimeBefore (p. 328)**

A filter that returns only notebook instances that were modified before the specified time (timestamp).

Type: Timestamp

Required: No

**MaxResults (p. 328)**

The maximum number of notebook instances to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NameContains (p. 328)**

A string in the notebook instances' name. This filter returns only notebook instances whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `[a-zA-Z0-9-]+`

Required: No

**NextToken (p. 328)**

If the previous call to the ListNotebookInstances is truncated, the response includes a NextToken. You can use this token in your subsequent ListNotebookInstances request to fetch the next set of notebook instances.

**Note**

You might specify a filter or a sort order in your request. When response is truncated, you must use the same values for the filter and sort order in the next request.

Type: String
Length Constraints: Maximum length of 8192.

Pattern: . *

Required: No

**NotebookInstanceLifecycleConfigNameContains (p. 328)**

A string in the name of a notebook instances lifecycle configuration associated with this notebook instance. This filter returns only notebook instances associated with a lifecycle configuration with a name that contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

Required: No

**SortBy (p. 328)**

The field to sort results by. The default is Name.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

**SortOrder (p. 328)**

The sort order for results.

Type: String

Valid Values: Ascending | Descending

Required: No

**StatusEquals (p. 328)**

A filter that returns only notebook instances with the specified status.

Type: String

Valid Values: Pending | InService | Stopping | Stopped | Failed | Deleting | Updating

Required: No

**Response Syntax**

```json
{
   "NextToken": "string",
   "NotebookInstances": [
      {
         "AdditionalCodeRepositories": [ "string" ],
         "CreationTime": number,
         "DefaultCodeRepository": "string",
         "InstanceType": "string",
         "LastModifiedTime": number,
         "NotebookInstanceArn": "string",
      }
   ]
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken (p. 330)

If the response to the previous ListNotebookInstances request was truncated, Amazon SageMaker returns this token. To retrieve the next set of notebook instances, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

NotebookInstances (p. 330)

An array of NotebookInstanceSummary objects, one for each notebook instance.

Type: Array of NotebookInstanceSummary (p. 633) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListProcessingJobs

Service: Amazon SageMaker Service

Lists processing jobs that satisfy various filters.

Request Syntax

```json
{
    "CreationTimeAfter": number,
    "CreationTimeBefore": number,
    "LastModifiedTimeAfter": number,
    "LastModifiedTimeBefore": number,
    "MaxResults": number,
    "NameContains": "string",
    "NextToken": "string",
    "SortBy": "string",
    "SortOrder": "string",
    "StatusEquals": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreationTimeAfter (p. 332)**

A filter that returns only processing jobs created after the specified time.

Type: Timestamp

Required: No

**CreationTimeBefore (p. 332)**

A filter that returns only processing jobs created after the specified time.

Type: Timestamp

Required: No

**LastModifiedTimeAfter (p. 332)**

A filter that returns only processing jobs modified after the specified time.

Type: Timestamp

Required: No

**LastModifiedTimeBefore (p. 332)**

A filter that returns only processing jobs modified before the specified time.

Type: Timestamp

Required: No

**MaxResults (p. 332)**

The maximum number of processing jobs to return in the response.
Type: Integer
Valid Range: Minimum value of 1. Maximum value of 100.
Required: No

**NameContains (p. 332)**
A string in the processing job name. This filter returns only processing jobs whose name contains the specified string.
Type: String
Required: No

**NextToken (p. 332)**
If the result of the previous ListProcessingJobs request was truncated, the response includes a NextToken. To retrieve the next set of processing jobs, use the token in the next request.
Type: String
Length Constraints: Maximum length of 8192.
Pattern: .*
Required: No

**SortBy (p. 332)**
The field to sort results by. The default is CreationTime.
Type: String
Valid Values: Name | CreationTime | Status
Required: No

**SortOrder (p. 332)**
The sort order for results. The default is Ascending.
Type: String
Valid Values: Ascending | Descending
Required: No

**StatusEquals (p. 332)**
A filter that retrieves only processing jobs with a specific status.
Type: String
Valid Values: InProgress | Completed | Failed | Stopping | Stopped
Required: No

**Response Syntax**

```
{
  "NextToken": "string",
  "ProcessingJobSummaries": [  
  }
```
"CreationTime": number,
"ExitMessage": "string",
"FailureReason": "string",
"LastModifiedTime": number,
"ProcessingEndTime": number,
"ProcessingJobArn": "string",
"ProcessingJobName": "string",
"ProcessingJobStatus": "string"
}

### Response Elements

If the action is successful, the service sends back an HTTP 200 response. The following data is returned in JSON format by the service.

**NextToken (p. 333)**

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of processing jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

**ProcessingJobSummaries (p. 333)**

An array of ProcessingJobSummary objects, each listing a processing job.

Type: Array of ProcessingJobSummary (p. 648) objects

### Errors

For information about the errors that are common to all actions, see [Common Errors (p. 759)](#).

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)
ListSubscribedWorkteams

Service: Amazon SageMaker Service

Gets a list of the work teams that you are subscribed to in the AWS Marketplace. The list may be empty if no work team satisfies the filter specified in the NameContains parameter.

Request Syntax

```json
{
   "MaxResults": number,
   "NameContains": "string",
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

MaxResults (p. 335)

- The maximum number of work teams to return in each page of the response.
- Type: Integer
- Valid Range: Minimum value of 1. Maximum value of 100.
- Required: No

NameContains (p. 335)

- A string in the work team name. This filter returns only work teams whose name contains the specified string.
- Type: String
- Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])* 
- Required: No

NextToken (p. 335)

- If the result of the previous ListSubscribedWorkteams request was truncated, the response includes a NextToken. To retrieve the next set of labeling jobs, use the token in the next request.
- Type: String
- Length Constraints: Maximum length of 8192.
- Pattern: .* 
- Required: No

Response Syntax

```json
{
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken (p. 335)

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of work teams, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

SubscribedWorkteams (p. 335)

An array of Workteam objects, each describing a work team.

Type: Array of SubscribedWorkteam (p. 688) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListTags
Service: Amazon SageMaker Service

Returns the tags for the specified Amazon SageMaker resource.

Request Syntax

```json
{
   "MaxResults": number,
   "NextToken": "string",
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

MaxResults (p. 337)

- Maximum number of tags to return.
- Type: Integer
- Valid Range: Minimum value of 50.
- Required: No

NextToken (p. 337)

- If the response to the previous ListTags request is truncated, Amazon SageMaker returns this token. To retrieve the next set of tags, use it in the subsequent request.
- Type: String
- Length Constraints: Maximum length of 8192.
- Pattern: .*
- Required: No

ResourceArn (p. 337)

- The Amazon Resource Name (ARN) of the resource whose tags you want to retrieve.
- Type: String
- Length Constraints: Maximum length of 256.
- Pattern: arn:.*
- Required: Yes

Response Syntax

```json
{
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken (p. 337)

- If response is truncated, Amazon SageMaker includes a token in the response. You can use this token in your subsequent request to fetch next set of tokens.
- Type: String
- Length Constraints: Maximum length of 8192.
- Pattern: .*

Tags (p. 337)

- An array of Tag objects, each with a tag key and a value.
- Type: Array of Tag (p. 691) objects
- Array Members: Minimum number of 0 items. Maximum number of 50 items.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListTrainingJobs
Service: Amazon SageMaker Service
Lists training jobs.

Request Syntax

```json
{
   "CreationTimeAfter": number,
   "CreationTimeBefore": number,
   "LastModifiedTimeAfter": number,
   "LastModifiedTimeBefore": number,
   "MaxResults": number,
   "NameContains": "string",
   "NextToken": "string",
   "SortBy": "string",
   "SortOrder": "string",
   "StatusEquals": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreationTimeAfter (p. 339)**

A filter that returns only training jobs created after the specified time (timestamp).

Type: Timestamp  
Required: No

**CreationTimeBefore (p. 339)**

A filter that returns only training jobs created before the specified time (timestamp).

Type: Timestamp  
Required: No

**LastModifiedTimeAfter (p. 339)**

A filter that returns only training jobs modified after the specified time (timestamp).

Type: Timestamp  
Required: No

**LastModifiedTimeBefore (p. 339)**

A filter that returns only training jobs modified before the specified time (timestamp).

Type: Timestamp  
Required: No

**MaxResults (p. 339)**

The maximum number of training jobs to return in the response.
Type: Integer
Valid Range: Minimum value of 1. Maximum value of 100.
Required: No

**NameContains (p. 339)**
A string in the training job name. This filter returns only training jobs whose name contains the specified string.
Type: String
Length Constraints: Maximum length of 63.
Pattern: [a-zA-Z0-9-\-]+
Required: No

**NextToken (p. 339)**
If the result of the previous ListTrainingJobs request was truncated, the response includes a NextToken. To retrieve the next set of training jobs, use the token in the next request.
Type: String
Length Constraints: Maximum length of 8192.
Pattern: .*
Required: No

**SortBy (p. 339)**
The field to sort results by. The default is CreationTime.
Type: String
Valid Values: Name | CreationTime | Status
Required: No

**SortOrder (p. 339)**
The sort order for results. The default is Ascending.
Type: String
Valid Values: Ascending | Descending
Required: No

**StatusEquals (p. 339)**
A filter that retrieves only training jobs with a specific status.
Type: String
Valid Values: InProgress | Completed | Failed | Stopping | Stopped
Required: No

**Response Syntax**

```
"NextToken": "string",
"TrainingJobSummaries": [
{
  "CreationTime": number,
  "LastModifiedTime": number,
  "TrainingEndTime": number,
  "TrainingJobArn": "string",
  "TrainingJobName": "string",
  "TrainingJobStatus": "string"
}
]
}

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextToken (p. 340)**

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of training jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

**TrainingJobSummaries (p. 340)**

An array of TrainingJobSummary objects, each listing a training job.

Type: Array of TrainingJobSummary (p. 705) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListTrainingJobsForHyperParameterTuningJob

Service: Amazon SageMaker Service

Gets a list of TrainingJobSummary objects that describe the training jobs that a hyperparameter tuning job launched.

Request Syntax

```
{
   "HyperParameterTuningJobName": "string",
   "MaxResults": number,
   "NextToken": "string",
   "SortBy": "string",
   "SortOrder": "string",
   "StatusEquals": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**HyperParameterTuningJobName (p. 342)**

The name of the tuning job whose training jobs you want to list.

- Type: String
- Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])* 

- Required: Yes

**MaxResults (p. 342)**

The maximum number of training jobs to return. The default value is 10.

- Type: Integer
- Valid Range: Minimum value of 1. Maximum value of 100.

- Required: No

**NextToken (p. 342)**

If the result of the previous ListTrainingJobsForHyperParameterTuningJob request was truncated, the response includes a NextToken. To retrieve the next set of training jobs, use the token in the next request.

- Type: String
- Length Constraints: Maximum length of 8192.

- Pattern: .* 

- Required: No

**SortBy (p. 342)**

The field to sort results by. The default is Name.
If the value of this field is `FinalObjectiveMetricValue`, any training jobs that did not return an objective metric are not listed.

Type: String

Valid Values: Name | CreationTime | Status | FinalObjectiveMetricValue

Required: No

**SortOrder (p. 342)**

The sort order for results. The default is `Ascending`.

Type: String

Valid Values: Ascending | Descending

Required: No

**StatusEquals (p. 342)**

A filter that returns only training jobs with the specified status.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: No

**Response Syntax**

```json
{
    "NextToken": "string",
    "TrainingJobSummaries": [
        {
            "CreationTime": number,
            "FailureReason": "string",
            "FinalHyperParameterTuningJobObjectiveMetric": {
                "MetricName": "string",
                "Type": "string",
                "Value": number
            },
            "ObjectiveStatus": "string",
            "TrainingEndTime": number,
            "TrainingJobArn": "string",
            "TrainingJobDefinitionName": "string",
            "TrainingJobName": "string",
            "TrainingJobStatus": "string",
            "TrainingStartTime": number,
            "TunedHyperParameters": {
                "string": "string"
            },
            "TuningJobName": "string"
        }
    ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
NextToken (p. 343)

If the result of this ListTrainingJobsForHyperParameterTuningJob request was truncated, the response includes a NextToken. To retrieve the next set of training jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

TrainingJobSummaries (p. 343)

A list of TrainingJobSummary (p. 705) objects that describe the training jobs that the ListTrainingJobsForHyperParameterTuningJob request returned.

Type: Array of HyperParameterTrainingJobSummary (p. 559) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListTransformJobs
Service: Amazon SageMaker Service

Lists transform jobs.

Request Syntax

```json
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreationTimeAfter (p. 345)**

A filter that returns only transform jobs created after the specified time.

Type: Timestamp

Required: No

**CreationTimeBefore (p. 345)**

A filter that returns only transform jobs created before the specified time.

Type: Timestamp

Required: No

**LastModifiedTimeAfter (p. 345)**

A filter that returns only transform jobs modified after the specified time.

Type: Timestamp

Required: No

**LastModifiedTimeBefore (p. 345)**

A filter that returns only transform jobs modified before the specified time.

Type: Timestamp

Required: No

**MaxResults (p. 345)**

The maximum number of transform jobs to return in the response. The default value is 10.
Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NameContains (p. 345)**

A string in the transform job name. This filter returns only transform jobs whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-]+

Required: No

**NextToken (p. 345)**

If the result of the previous ListTransformJobs request was truncated, the response includes a NextToken. To retrieve the next set of transform jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Required: No

**SortBy (p. 345)**

The field to sort results by. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

**SortOrder (p. 345)**

The sort order for results. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

**StatusEquals (p. 345)**

A filter that retrieves only transform jobs with a specific status.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: No

**Response Syntax**

```
"NextToken": "string",
"TransformJobSummaries": [
{
  "CreationTime": number,
  "FailureReason": "string",
  "LastModifiedTime": number,
  "TransformEndTime": number,
  "TransformJobArn": "string",
  "TransformJobName": "string",
  "TransformJobStatus": "string"
}
]

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken (p. 346)

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of transform jobs, use it in the next request.

Type: String
Length Constraints: Maximum length of 8192.
Pattern: .*

TransformJobSummaries (p. 346)

An array of TransformJobSummary objects.

Type: Array of TransformJobSummary (p. 714) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListTrialComponents
Service: Amazon SageMaker Service

Lists the trial components in your account. You can sort the list by trial component name or creation time. You can filter the list to show only components that were created in a specific time range. You can also filter on one of the following:

- ExperimentName
- SourceArn
- TrialName

Request Syntax

```
{
  "CreatedAfter": number,
  "CreatedBefore": number,
  "ExperimentName": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "SourceArn": "string",
  "TrialName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CreatedAfter (p. 348)**

A filter that returns only components created after the specified time.

Type: Timestamp

Required: No

**CreatedBefore (p. 348)**

A filter that returns only components created before the specified time.

Type: Timestamp

Required: No

**ExperimentName (p. 348)**

A filter that returns only components that are part of the specified experiment. If you specify ExperimentName, you can't filter by SourceArn or TrialName.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](\*|[a-zA-Z0-9])*$
Required: No

**MaxResults (p. 348)**

The maximum number of components to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextToken (p. 348)**

If the previous call to ListTrialComponents didn't return the full set of components, the call returns a token for getting the next set of components.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Required: No

**SortBy (p. 348)**

The property used to sort results. The default value is CreationTime.

Type: String

Valid Values: Name | CreationTime

Required: No

**SortOrder (p. 348)**

The sort order. The default value is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

**SourceArn (p. 348)**

A filter that returns only components that have the specified source Amazon Resource Name (ARN). If you specify SourceArn, you can't filter by ExperimentName or TrialName.

Type: String

Length Constraints: Maximum length of 256.

Required: No

**TrialName (p. 348)**

A filter that returns only components that are part of the specified trial. If you specify TrialName, you can't filter by ExperimentName or SourceArn.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*
Response Syntax

```json
{
  "NextToken": "string",
  "TrialComponentSummaries": [
    {
      "CreatedBy": {
        "DomainId": "string",
        "UserProfileArn": "string",
        "UserProfileName": "string"
      },
      "CreationTime": number,
      "DisplayName": "string",
      "EndTime": number,
      "LastModifiedBy": {
        "DomainId": "string",
        "UserProfileArn": "string",
        "UserProfileName": "string"
      },
      "LastModifiedTime": number,
      "StartTime": number,
      "Status": {
        "Message": "string",
        "PrimaryStatus": "string"
      },
      "TrialComponentArn": "string",
      "TrialComponentName": "string",
      "TrialComponentSource": {
        "SourceArn": "string",
        "SourceType": "string"
      }
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextToken** *(p. 350)*

A token for getting the next set of components, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

**TrialComponentSummaries** *(p. 350)*

A list of the summaries of your trial components.

Type: Array of **TrialComponentSummary** *(p. 736)* objects

Errors

For information about the errors that are common to all actions, see Common Errors *(p. 759).*
ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListTrials

Service: Amazon SageMaker Service

Lists the trials in your account. Specify an experiment name to limit the list to the trials that are part of that experiment. Specify a trial component name to limit the list to the trials that associated with that trial component. The list can be filtered to show only trials that were created in a specific time range. The list can be sorted by trial name or creation time.

Request Syntax

```json
{
   "CreatedAfter": number,
   "CreatedBefore": number,
   "ExperimentName": "string",
   "MaxResults": number,
   "NextToken": "string",
   "SortBy": "string",
   "SortOrder": "string",
   "TrialComponentName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

CreatedAfter (p. 352)

A filter that returns only trials created after the specified time.

Type: Timestamp

Required: No

CreatedBy (p. 352)

A filter that returns only trials created before the specified time.

Type: Timestamp

Required: No

ExperimentName (p. 352)

A filter that returns only trials that are part of the specified experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](\-[a-zA-Z0-9])*$

Required: No

MaxResults (p. 352)

The maximum number of trials to return in the response. The default value is 10.

Type: Integer
Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextToken (p. 352)**

If the previous call to `ListTrials` didn't return the full set of trials, the call returns a token for getting the next set of trials.

- Type: String
- Length Constraints: Maximum length of 8192.
- Pattern: .*

Required: No

**SortBy (p. 352)**

The property used to sort results. The default value is `CreationTime`.

- Type: String
- Valid Values: `Name` | `CreationTime`

Required: No

**SortOrder (p. 352)**

The sort order. The default value is `Descending`.

- Type: String
- Valid Values: `Ascending` | `Descending`

Required: No

**TrialComponentName (p. 352)**

A filter that returns only trials that are associated with the specified trial component.

- Type: String
- Length Constraints: Minimum length of 1. Maximum length of 82.
- Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: No

### Response Syntax

```
{
  "NextToken": "string",
  "TrialSummaries": [ 
    { 
      "CreationTime": number,
      "DisplayName": "string",
      "LastModifiedTime": number,
      "TrialArn": "string",
      "TrialName": "string",
      "TrialSource": { 
        "SourceArn": "string",
        "SourceType": "string"
      }
    }
  ]
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken (p. 353)

A token for getting the next set of trials, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

TrialSummaries (p. 353)

A list of the summaries of your trials.

Type: Array of TrialSummary (p. 739) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListUserProfiles

Service: Amazon SageMaker Service

Lists user profiles.

Request Syntax

```json
{
    "DomainIdEquals": "string",
    "MaxResults": number,
    "NextToken": "string",
    "SortBy": "string",
    "SortOrder": "string",
    "UserProfileNameContains": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**DomainIdEquals (p. 355)**

A parameter by which to filter the results.

Type: String

Length Constraints: Maximum length of 63.

Required: No

**MaxResults (p. 355)**

Returns a list up to a specified limit.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextToken (p. 355)**

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: . *

Required: No

**SortBy (p. 355)**

The parameter by which to sort the results. The default is CreationTime.

Type: String
Valid Values: CreationTime | LastModifiedTime

Required: No

**SortOrder (p. 355)**

The sort order for the results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

**UserProfileNameContains (p. 355)**

A parameter by which to filter the results.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*

Required: No

**Response Syntax**

```json
{
   "NextToken": "string",
   "UserProfiles": [
      {
         "CreationTime": number,
         "DomainId": "string",
         "LastModifiedTime": number,
         "Status": "string",
         "UserProfileName": "string"
      }
   ]
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextToken (p. 356)**

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

**UserProfiles (p. 356)**

The list of user profiles.
Type: Array ofUserProfileDetails (p. 747) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListWorkteams

Service: Amazon SageMaker Service

Gets a list of work teams that you have defined in a region. The list may be empty if no work team satisfies the filter specified in the NameContains parameter.

Request Syntax

```
{
    "MaxResults": number,
    "NameContains": "string",
    "NextToken": "string",
    "SortBy": "string",
    "SortOrder": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

MaxResults (p. 358)

The maximum number of work teams to return in each page of the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NameContains (p. 358)

A string in the work team's name. This filter returns only work teams whose name contains the specified string.

Type: String


Pattern: ^[a-zA-Z0-9]*$[a-zA-Z0-9]*$^\n
Required: No

NextToken (p. 358)

If the result of the previous ListWorkteams request was truncated, the response includes a NextToken. To retrieve the next set of labeling jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

Required: No

SortBy (p. 358)

The field to sort results by. The default is CreationTime.
Type: String

Valid Values: Name | CreateDate

Required: No

**SortOrder (p. 358)**

The sort order for results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

### Response Syntax

```json
{
  "NextToken": "string",
  "Workteams": [
    {
      "CreateDate": number,
      "Description": "string",
      "LastUpdatedDate": number,
      "MemberDefinitions": [
        {
          "CognitoMemberDefinition": {
            "ClientId": "string",
            "UserGroup": "string",
            "UserPool": "string"
          }
        }
      ],
      "NotificationConfiguration": {
        "NotificationTopicArn": "string"
      },
      "ProductListingIds": [ "string" ],
      "SubDomain": "string",
      "WorkteamArn": "string",
      "WorkteamName": "string"
    }
  ]
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**NextToken (p. 359)**

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of work teams, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*
Workteams (p. 359)

An array of Workteam objects, each describing a work team.

Type: Array of Workteam (p. 755) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
RenderUiTemplate
Service: Amazon SageMaker Service

Renders the UI template so that you can preview the worker's experience.

Request Syntax

```json
{
   "RoleArn": "string",
   "Task": {
      "Input": "string"
   },
   "UiTemplate": {
      "Content": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

RoleArn (p. 361)

The Amazon Resource Name (ARN) that has access to the S3 objects that are used by the template.

Type: String


Pattern: ^arn:aws[a-z\-]*:iam::\d{12}:role/?[a-zA-Z0-9+=,.@\-_\d\s]+$

Required: Yes

Task (p. 361)

A RenderableTask object containing a representative task to render.

Type: RenderableTask (p. 666) object

Required: Yes

UiTemplate (p. 361)

A Template object containing the worker UI template to render.

Type: UiTemplate (p. 743) object

Required: Yes

Response Syntax

```json
{
   "Errors": [
      {
         "Code": "string",
         "Message": "string"
      }
   ]
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Errors (p. 361)
A list of one or more RenderingError objects if any were encountered while rendering the template. If there were no errors, the list is empty.

Type: Array of RenderingError (p. 667) objects

RenderedContent (p. 361)
A Liquid template that renders the HTML for the worker UI.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
Search

Service: Amazon SageMaker Service

Finds Amazon SageMaker resources that match a search query. Matching resource objects are returned as a list of SearchResult objects in the response. You can sort the search results by any resource property in an ascending or descending order.

You can query against the following value types: numeric, text, Boolean, and timestamp.

Request Syntax

```json
{
   "MaxResults": number,
   "NextToken": "string",
   "Resource": "string",
   "SearchExpression": {
      "Filters": [
         {
            "Name": "string",
            "Operator": "string",
            "Value": "string"
         }
      ],
      "NestedFilters": [
         {
            "Filters": [
               {
                  "Name": "string",
                  "Operator": "string",
                  "Value": "string"
               }
            ],
            "NestedPropertyName": "string"
         }
      ],
      "Operator": "string",
      "SubExpressions": [
         "SearchExpression"
      ],
      "SortBy": "string",
      "SortOrder": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

MaxResults (p. 363)

The maximum number of results to return in a SearchResponse.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No
NextToken (p. 363)

If more than MaxResults resource objects match the specified SearchExpression, the SearchResponse includes a NextToken. The NextToken can be passed to the next SearchRequest to continue retrieving results for the specified SearchExpression and Sort parameters.

Type: String
Length Constraints: Maximum length of 8192.
Pattern: .*
Required: No

Resource (p. 363)

The name of the Amazon SageMaker resource to search for.
Type: String
Valid Values: TrainingJob | Experiment | ExperimentTrial | ExperimentTrialComponent
Required: Yes

SearchExpression (p. 363)

A Boolean conditional statement. Resource objects must satisfy this condition to be included in search results. You must provide at least one subexpression, filter, or nested filter. The maximum number of recursive SubExpressions, NestedFilters, and Filters that can be included in a SearchExpression object is 50.

Type: SearchExpression (p. 677) object
Required: No

SortBy (p. 363)

The name of the resource property used to sort the SearchResults. The default is LastModifiedTime.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 255.
Pattern: .+
Required: No

SortOrder (p. 363)

How SearchResults are ordered. Valid values are Ascending or Descending. The default is Descending.
Type: String
Valid Values: Ascending | Descending
Required: No

Response Syntax

{
   "NextToken": "string",
}
"Results": [
    {
        "Experiment": {
            "CreatedBy": {
                "DomainId": "string",
                "UserProfileArn": "string",
                "UserProfileName": "string"
            },
            "CreationTime": number,
            "Description": "string",
            "DisplayName": "string",
            "ExperimentArn": "string",
            "ExperimentName": "string",
            "LastModifiedBy": {
                "DomainId": "string",
                "UserProfileArn": "string",
                "UserProfileName": "string"
            },
            "LastModifiedTime": number,
            "Source": {
                "SourceArn": "string",
                "SourceType": "string"
            },
            "Tags": [
                {
                    "Key": "string",
                    "Value": "string"
                }
            ]
        },
        "TrainingJob": {
            "AlgorithmSpecification": {
                "AlgorithmName": "string",
                "EnableSageMakerMetricsTimeSeries": boolean,
                "MetricDefinitions": [
                    {
                        "Name": "string",
                        "Regex": "string"
                    }
                ],
                "TrainingImage": "string",
                "TrainingInputMode": "string"
            },
            "AutoMLJobArn": "string",
            "BillableTimeInSeconds": number,
            "CheckpointConfig": {
                "LocalPath": "string",
                "S3Uri": "string"
            },
            "CreationTime": number,
            "DebugHookConfig": {
                "CollectionConfigurations": [
                    {
                        "CollectionName": "string",
                        "CollectionParameters": {
                            "string": "string"
                        }
                    }
                ],
                "HookParameters": {
                    "string": "string"
                },
                "LocalPath": "string",
                "S3OutputPath": "string"
            },
            "DebugRuleConfigurations": [
            ]
        }
    }
]
{  "InstanceType": "string",  "LocalPath": "string",  "RuleConfigurationName": "string",  "RuleEvaluatorImage": "string",  "RuleParameters": {  "string": "string" },  "S3OutputPath": "string",  "VolumeSizeInGB": number },  
"DebugRuleEvaluationStatuses": [  {  "LastModifiedTime": number,  "RuleConfigurationName": "string",  "RuleEvaluationJobArn": "string",  "RuleEvaluationStatus": "string",  "StatusDetails": "string" } ],  
"EnableInterContainerTrafficEncryption": boolean,  "EnableManagedSpotTraining": boolean,  
"EnableNetworkIsolation": boolean,  
"ExperimentConfig": {  "ExperimentName": "string",  "TrialComponentDisplayName": "string",  "TrialName": "string" },  
"FailureReason": "string",  
"FinalMetricDataList": [  {  "MetricName": "string",  "Timestamp": number,  "Value": number } ],  
"HyperParameters": {  "string": "string" },  
"InputDataConfig": [  {  "ChannelName": "string",  "CompressionType": "string",  "ContentType": "string",  "DataSource": {  "FileSystemDataSource": {  "DirectoryPath": "string",  "FileSystemAccessMode": "string",  "FileSystemId": "string",  "FileSystemType": "string" },  "S3DataSource": {  "AttributeNames": [ "string" ],  "S3DataDistributionType": "string",  "S3DataType": "string",  "S3Uri": "string" }  },  "InputMode": "string",  "RecordWrapperType": "string",  "ShuffleConfig": {  "Seed": number  } } ]}.
"LabelingJobArn": "string",
"LastModifiedTime": number,
"ModelArtifacts": {
    "S3ModelArtifacts": "string"
},
"OutputDataConfig": {
    "KmsKeyId": "string",
    "S3OutputPath": "string"
},
"ResourceConfig": {
    "InstanceCount": number,
    "InstanceType": "string",
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
},
"RoleArn": "string",
"SecondaryStatus": "string",
"SecondaryStatusTransitions": [
    {
        "EndTime": number,
        "StartTime": number,
        "Status": "string",
        "StatusMessage": "string"
    }
],
"StoppingCondition": {
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
},
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
],
"TensorBoardOutputConfig": {
    "LocalPath": "string",
    "S3OutputPath": "string"
},
"TrainingEndTime": number,
"TrainingJobArn": "string",
"TrainingJobName": "string",
"TrainingJobStatus": "string",
"TrainingStartTime": number,
"TrainingTimeInSeconds": number,
"TuningJobArn": "string",
"VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
}
],
"Trial": {
    "CreatedBy": {
        "DomainId": "string",
        "UserProfileArn": "string",
        "UserProfileName": "string"
    },
    "CreationTime": number,
    "DisplayName": "string",
    "ExperimentName": "string",
    "LastModifiedBy": {
        "DomainId": "string",
        "UserProfileArn": "string",
        "UserProfileName": "string"
    },
    "LastModifiedTime": number,
"Source": {  
  "SourceArn": "string",
  "SourceType": "string"
},
"Tags": [
  {  
    "Key": "string",
    "Value": "string"
  }
],
"TrialArn": "string",
"TrialComponentSummaries": [
  {  
    "CreatedBy": {
      "DomainId": "string",
      "UserProfileArn": "string",
      "UserProfileName": "string"
    },
    "CreationTime": number,
    "TrialComponentArn": "string",
    "TrialComponentName": "string",
    "TrialComponentSource": {
      "SourceArn": "string",
      "SourceType": "string"
    }
  }
],
"TrialName": "string"
},
"TrialComponent": {
  "CreatedBy": {
    "DomainId": "string",
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "CreationTime": number,
  "DisplayName": "string",
  "EndTime": number,
  "InputArtifacts": {
    "string": {
      "MediaType": "string",
      "Value": "string"
    }
  },
  "LastModifiedBy": {
    "DomainId": "string",
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "LastModifiedTime": number,
  "Metrics": [
    {  
      "Avg": number,
      "Count": number,
      "Last": number,
      "Max": number,
      "MetricName": "string",
      "Min": number,
      "SourceArn": "string",
      "StdDev": number,
      "TimeStamp": number
    }
  ],
  "OutputArtifacts": {
    "string": {
      "MediaType": "string",
      "Value": "string"
    }
  }
}
"Value": "string"
},
"Parameters": {
  "string": {
    "NumberValue": number,
    "StringValue": "string"
  }
},
"Parents": [
  {
    "ExperimentName": "string",
    "TrialName": "string"
  }
],
"Source": {
  "SourceArn": "string",
  "SourceType": "string"
},
"SourceDetail": {
  "SourceArn": "string",
  "TrainingJob": {
    "AlgorithmSpecification": {
      "AlgorithmName": "string",
      "EnableSageMakerMetricsTimeSeries": boolean,
      "MetricDefinitions": [
        {
          "Name": "string",
          "Regex": "string"
        }
      ],
      "TrainingImage": "string",
      "TrainingInputMode": "string"
    },
    "AutoMLJobArn": "string",
    "BillableTimeInSeconds": number,
    "CheckpointConfig": {
      "LocalPath": "string",
      "S3Uri": "string"
    },
    "CreationTime": number,
    "DebugHookConfig": {
      "CollectionConfigurations": [
        {
          "CollectionName": "string",
          "CollectionParameters": {
            "string": "string"
          }
        }
      ],
      "HookParameters": {
        "string": "string"
      },
      "LocalPath": "string",
      "S3OutputPath": "string"
    },
    "DebugRuleConfigurations": [
      {
        "InstanceType": "string",
        "LocalPath": "string",
        "RuleConfigurationName": "string",
        "RuleEvaluatorImage": "string",
        "RuleParameters": {
          "string": "string"
        },
        "S3OutputPath": "string"
      }
    ]
  }
}
"VolumeSizeInGB": number
},
"DebugRuleEvaluationStatuses": [
  {
    "LastModifiedTime": number,
    "RuleConfigurationName": "string",
    "RuleEvaluationJobArn": "string",
    "RuleEvaluationStatus": "string",
    "StatusDetails": "string"
  }
],
"EnableInterContainerTrafficEncryption": boolean,
"EnableManagedSpotTraining": boolean,
"EnableNetworkIsolation": boolean,
"ExperimentConfig": {
  "ExperimentName": "string",
  "TrialComponentDisplayName": "string",
  "TrialName": "string"
},
"FailureReason": "string",
"FinalMetricDataList": [
  {
    "MetricName": "string",
    "Timestamp": number,
    "Value": number
  }
],
"HyperParameters": {
  "string": "string"
},
"InputDataConfig": [
  {
    "ChannelName": "string",
    "CompressionType": "string",
    "ContentType": "string",
    "DataSource": {
      "FileSystemDataSource": {
        "DirectoryPath": "string",
        "FileSystemAccessMode": "string",
        "FileSystemId": "string",
        "FileSystemType": "string"
      },
      "S3DataSource": {
        "AttributeNames": [ "string" ],
        "S3DataDistributionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
      }
    },
    "InputMode": "string",
    "RecordWrapperType": "string",
    "ShuffleConfig": {
      "Seed": number
    }
  }
],
"LabelingJobArn": "string",
"LastModifiedTime": number,
"ModelArtifacts": {
  "S3ModelArtifacts": "string"
},
"OutputDataConfig": {
  "KmsKeyId": "string",
  "S3OutputPath": "string"
"ResourceConfig": {
  "InstanceCount": number,
  "InstanceType": "string",
  "VolumeKmsKeyId": "string",
  "VolumeSizeInGB": number
},
"RoleArn": "string",
"SecondaryStatus": "string",
"SecondaryStatusTransitions": [
  {
    "EndTime": number,
    "StartTime": number,
    "Status": "string",
    "StatusMessage": "string"
  }
],
"StoppingCondition": {
  "MaxRuntimeInSeconds": number,
  "MaxWaitTimeInSeconds": number
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
],
"TensorBoardOutputConfig": {
  "LocalPath": "string",
  "S3OutputPath": "string"
},
"TrainingEndTime": number,
"TrainingJobArn": "string",
"TrainingJobName": "string",
"TrainingJobStatus": "string",
"TrainingStartTime": number,
"TrainingTimeInSeconds": number,
"TuningJobArn": "string",
"VpcConfig": {
  "SecurityGroupIds": [ "string" ],
  "Subnets": [ "string" ]
}
},
"StartTime": number,
"Status": {
  "Message": "string",
  "PrimaryStatus": "string"
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
],
"TrialComponentArn": "string",
"TrialComponentName": "string"
}
The following data is returned in JSON format by the service.

**NextToken (p. 364)**

If the result of the previous `Search` request was truncated, the response includes a `NextToken`. To retrieve the next set of results, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .*

**Results (p. 364)**

A list of `SearchResult` objects.

Type: Array of `SearchRecord` (p. 679) objects

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
StartMonitoringSchedule
Service: Amazon SageMaker Service

Starts a previously stopped monitoring schedule.

Note
New monitoring schedules are immediately started after creation.

Request Syntax

```
{
  "MonitoringScheduleName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**MonitoringScheduleName (p. 373)**

The name of the schedule to start.

Type: String


Pattern: ^[a-zA-Z0-9\-]*[a-zA-Z0-9]$%

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
StartNotebookInstance
Service: Amazon SageMaker Service

Launches an ML compute instance with the latest version of the libraries and attaches your ML storage volume. After configuring the notebook instance, Amazon SageMaker sets the notebook instance status to InService. A notebook instance's status must be InService before you can connect to your Jupyter notebook.

Request Syntax

```
{
    "NotebookInstanceName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**NotebookInstanceName (p. 375)**

The name of the notebook instance to start.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])* Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceLimitExceeded**

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
**StopAutoMLJob**

Service: Amazon SageMaker Service

A method for forcing the termination of a running job.

**Request Syntax**

```
{
   "AutoMLJobName": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**AutoMLJobName (p. 377)**

The name of the object you are requesting.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*\n
Required: Yes

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
StopCompilationJob

Service: Amazon SageMaker Service

Stops a model compilation job.

To stop a job, Amazon SageMaker sends the algorithm the SIGTERM signal. This gracefully shuts the job down. If the job hasn't stopped, it sends the SIGKILL signal.

When it receives a StopCompilationJob request, Amazon SageMaker changes the CompilationJobSummary:CompilationJobStatus (p. 490) of the job to Stopping. After Amazon SageMaker stops the job, it sets the CompilationJobSummary:CompilationJobStatus (p. 490) to Stopped.

Request Syntax

```
{
   "CompilationJobName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CompilationJobName (p. 379)**

The name of the model compilation job to stop.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
StopHyperParameterTuningJob

Service: Amazon SageMaker Service

Stops a running hyperparameter tuning job and all running training jobs that the tuning job launched.

All model artifacts output from the training jobs are stored in Amazon Simple Storage Service (Amazon S3). All data that the training jobs write to Amazon CloudWatch Logs are still available in CloudWatch. After the tuning job moves to the Stopped state, it releases all reserved resources for the tuning job.

Request Syntax

```json
{
    "HyperParameterTuningJobName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

HyperParameterTuningJobName (p. 381)

The name of the tuning job to stop.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFoundException

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
StopLabelingJob
Service: Amazon SageMaker Service

Stops a running labeling job. A job that is stopped cannot be restarted. Any results obtained before the job is stopped are placed in the Amazon S3 output bucket.

Request Syntax

```json
{
   "LabelingJobName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**LabelingJobName (p. 383)**

  The name of the labeling job to stop.

  Type: String


  Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*

  Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceNotFound**

  Resource being access is not found.

  HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
StopMonitoringSchedule

Service: Amazon SageMaker Service

Stops a previously started monitoring schedule.

Request Syntax

```
{
    "MonitoringScheduleName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

MonitoringScheduleName (p. 385)

The name of the schedule to stop.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)+$

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
StopNotebookInstance
Service: Amazon SageMaker Service

Terminates the ML compute instance. Before terminating the instance, Amazon SageMaker disconnects
the ML storage volume from it. Amazon SageMaker preserves the ML storage volume. Amazon
SageMaker stops charging you for the ML compute instance when you call StopNotebookInstance.

To access data on the ML storage volume for a notebook instance that has been terminated, call the
StartNotebookInstance API. StartNotebookInstance launches another ML compute instance,
configures it, and attaches the preserved ML storage volume so you can continue your work.

Request Syntax

```
{
   "NotebookInstanceName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common
Parameters (p. 757).

The request accepts the following data in JSON format.

**NotebookInstanceName (p. 387)**

The name of the notebook instance to terminate.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9\-]*[a-zA-Z0-9]*/

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
StopProcessingJob

Service: Amazon SageMaker Service

Stops a processing job.

Request Syntax

```
{
  "ProcessingJobName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**ProcessingJobName (p. 389)**

The name of the processing job to stop.

Type: String


Pattern: `^[a-zA-Z0-9][-\[a-zA-Z0-9\]]*(-[a-zA-Z0-9\]]\])*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
StopProcessingJob

- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
StopTrainingJob

Service: Amazon SageMaker Service

Stops a training job. To stop a job, Amazon SageMaker sends the algorithm the SIGTERM signal, which delays job termination for 120 seconds. Algorithms might use this 120-second window to save the model artifacts, so the results of the training is not lost.

When it receives a StopTrainingJob request, Amazon SageMaker changes the status of the job to Stopping. After Amazon SageMaker stops the job, it sets the status to Stopped.

Request Syntax

```
{
    "TrainingJobName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

TrainingJobName (p. 391)

The name of the training job to stop.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*%

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceNotFoundException

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
StopTransformJob

Service: Amazon SageMaker Service

Stops a transform job.

When Amazon SageMaker receives a StopTransformJob request, the status of the job changes to Stopping. After Amazon SageMaker stops the job, the status is set to Stopped. When you stop a transform job before it is completed, Amazon SageMaker doesn't store the job's output in Amazon S3.

Request Syntax

```
{
   "TransformJobName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**TransformJobName (p. 393)**

The name of the transform job to stop.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])* Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
UpdateCodeRepository
Service: Amazon SageMaker Service

Updates the specified Git repository with the specified values.

Request Syntax

```json
{
    "CodeRepositoryName": "string",
    "GitConfig": {
        "SecretArn": "string"
    }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**CodeRepositoryName (p. 395)**

The name of the Git repository to update.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)$

Required: Yes

**GitConfig (p. 395)**

The configuration of the git repository, including the URL and the Amazon Resource Name (ARN) of the AWS Secrets Manager secret that contains the credentials used to access the repository. The secret must have a staging label of AWSCURRENT and must be in the following format:

```json
{"username": UserName, "password": Password}
```

Type: GitConfigForUpdate (p. 535) object

Required: No

Response Syntax

```json
{
    "CodeRepositoryArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
**CodeRepositoryArn (p. 395)**

The ARN of the Git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:code-repository/.*`

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateDomain
Service: Amazon SageMaker Service

Updates a domain. Changes will impact all of the people in the domain.

Request Syntax

```json
{
  "DefaultUserSettings": {
    "ExecutionRole": "string",
    "JupyterServerAppSettings": {
      "DefaultResourceSpec": {
        "EnvironmentArn": "string",
        "InstanceType": "string"
      }
    },
    "KernelGatewayAppSettings": {
      "DefaultResourceSpec": {
        "EnvironmentArn": "string",
        "InstanceType": "string"
      }
    },
    "SecurityGroups": [ "string" ],
    "SharingSettings": {
      "NotebookOutputOption": "string",
      "S3KmsKeyId": "string",
      "S3OutputPath": "string"
    },
    "TensorBoardAppSettings": {
      "DefaultResourceSpec": {
        "EnvironmentArn": "string",
        "InstanceType": "string"
      }
    }
  },
  "DomainId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**DefaultUserSettings (p. 397)**

A collection of settings.

Type: UserSettings (p. 749) object

Required: No

**DomainId (p. 397)**

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes
Response Syntax

```json
{
    "DomainArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**DomainArn (p. 398)**

The domain Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z-]*:sagemaker:[a-z0-9-]*:[0-9]{12}:domain/.*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

**ResourceLimitExceeded**

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

**ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
UpdateEndpoint
Service: Amazon SageMaker Service

Deploys the new EndpointConfig specified in the request, switches to using newly created endpoint, and then deletes resources provisioned for the endpoint using the previous EndpointConfig (there is no availability loss).

When Amazon SageMaker receives the request, it sets the endpoint status to Updating. After updating the endpoint, it sets the status to InService. To check the status of an endpoint, use the DescribeEndpoint (p. 174) API.

**Note**
You must not delete an EndpointConfig in use by an endpoint that is live or while the UpdateEndpoint or CreateEndpoint operations are being performed on the endpoint. To update an endpoint, you must create a new EndpointConfig.

**Request Syntax**

```json
{
  "EndpointConfigName": "string",
  "EndpointName": "string",
  "ExcludeRetainedVariantProperties": [
    {
      "VariantPropertyType": "string"
    }
  ],
  "RetainAllVariantProperties": boolean
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**EndpointConfigName (p. 400)**

The name of the new endpoint configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])* Required: Yes

**EndpointName (p. 400)**

The name of the endpoint whose configuration you want to update.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])* Required: Yes
ExcludeRetainedVariantProperties (p. 400)

When you are updating endpoint resources with UpdateEndpoint:RetainAllVariantProperties (p. 401), whose value is set to true, ExcludeRetainedVariantProperties specifies the list of type VariantProperty (p. 751) to override with the values provided by EndpointConfig. If you don't specify a value for ExcludeAllVariantProperties, no variant properties are overridden.

Type: Array of VariantProperty (p. 751) objects

Array Members: Minimum number of 0 items. Maximum number of 3 items.

Required: No

RetainAllVariantProperties (p. 400)

When updating endpoint resources, enables or disables the retention of variant properties, such as the instance count or the variant weight. To retain the variant properties of an endpoint when updating it, set RetainAllVariantProperties to true. To use the variant properties specified in a new EndpointConfig call when updating an endpoint, set RetainAllVariantProperties to false.

Type: Boolean

Required: No

Response Syntax

```
{
  "EndpointArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**EndpointArn (p. 401)**

The Amazon Resource Name (ARN) of the endpoint.

Type: String


Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:endpoint/.*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceLimitExceeded**

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
**UpdateEndpointWeightsAndCapacities**  
Service: Amazon SageMaker Service

Updates variant weight of one or more variants associated with an existing endpoint, or capacity of one variant associated with an existing endpoint. When it receives the request, Amazon SageMaker sets the endpoint status to `Updating`. After updating the endpoint, it sets the status to `InService`. To check the status of an endpoint, use the [DescribeEndpoint API](#) (p. 174).

**Request Syntax**

```json
{
    "DesiredWeightsAndCapacities": [
        {
            "DesiredInstanceCount": number,
            "DesiredWeight": number,
            "VariantName": "string"
        }
    ],
    "EndpointName": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 757).

The request accepts the following data in JSON format.

**DesiredWeightsAndCapacities (p. 403)**

An object that provides new capacity and weight values for a variant.

Type: Array of [DesiredWeightAndCapacity](#) (p. 510) objects

Array Members: Minimum number of 1 item.

Required: Yes

**EndpointName (p. 403)**

The name of an existing Amazon SageMaker endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9\-]*[a-zA-Z0-9\-]*$`

Required: Yes

**Response Syntax**

```json
{
    "EndpointArn": "string"
}
```
Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**EndpointArn (p. 403)**

The Amazon Resource Name (ARN) of the updated endpoint.

Type: String


Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:endpoint/.*`

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceLimitExceeded**

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
**UpdateExperiment**

Service: Amazon SageMaker Service

Adds, updates, or removes the description of an experiment. Updates the display name of an experiment.

**Request Syntax**

```json
{
   "Description": "string",
   "DisplayName": "string",
   "ExperimentName": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**Description (p. 405)**

The description of the experiment.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .*

Required: No

**DisplayName (p. 405)**

The name of the experiment as displayed. The name doesn't need to be unique. If DisplayName isn't specified, ExperimentName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*n

Required: No

**ExperimentName (p. 405)**

The name of the experiment to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*n

Required: Yes

**Response Syntax**

```json
{
}
```
"ExperimentArn": "string"
}

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**ExperimentArn (p. 405)**

The Amazon Resource Name (ARN) of the experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment/.*`

**Errors**

For information about the errors that are common to all actions, see [Common Errors (p. 759)].

**ConflictException**

There was a conflict when you attempted to modify an experiment, trial, or trial component.

HTTP Status Code: 400

**ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateMonitoringSchedule
Service: Amazon SageMaker Service

Updates a previously created schedule.

Request Syntax

```json
{
  "MonitoringScheduleConfig": {
    "MonitoringJobDefinition": {
      "BaselineConfig": {
        "ConstraintsResource": {
          "S3Uri": "string"
        },
        "StatisticsResource": {
          "S3Uri": "string"
        }
      },
      "Environment": {
        "string": "string"
      },
      "MonitoringAppSpecification": {
        "ContainerArguments": [ "string" ],
        "ContainerEntrypoint": [ "string" ],
        "ImageUri": "string",
        "PostAnalyticsProcessorSourceUri": "string",
        "RecordPreprocessorSourceUri": "string"
      },
      "MonitoringInputs": [
        {
          "EndpointInput": {
            "EndpointName": "string",
            "LocalPath": "string",
            "S3DataDistributionType": "string",
            "S3InputMode": "string"
          }
        }
      ],
      "MonitoringOutputConfig": {
        "KmsKeyId": "string",
        "MonitoringOutputs": [
          {
            "S3Output": {
              "LocalPath": "string",
              "S3UploadMode": "string",
              "S3Uri": "string"
            }
          }
        ],
        "MonitoringResources": {
          "ClusterConfig": {
            "InstanceCount": number,
            "InstanceType": "string",
            "VolumeKmsKeyId": "string",
            "VolumeSizeInGB": number
          }
        },
        "NetworkConfig": {
          "EnableNetworkIsolation": boolean,
          "VpcConfig": {
            "SecurityGroupId": [ "string" ],
            "Subnets": [ "string" ]
          }
        }
      }
    }
  }
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

MonitoringScheduleConfig (p. 407)

The configuration object that specifies the monitoring schedule and defines the monitoring job.

Type: MonitoringScheduleConfig (p. 624) object

Required: Yes

MonitoringScheduleName (p. 407)

The name of the monitoring schedule. The name must be unique within an AWS Region within an AWS account.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

Required: Yes

Response Syntax

```json
{
  "MonitoringScheduleArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

MonitoringScheduleArn (p. 408)

The Amazon Resource Name (ARN) of the monitoring schedule.

Type: String
Length Constraints: Maximum length of 256.

Pattern: .*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceIdExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

ResourceNotFoundException

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateNotebookInstance

Service: Amazon SageMaker Service

Updates a notebook instance. NotebookInstance updates include upgrading or downgrading the
ML compute instance used for your notebook instance to accommodate changes in your workload
requirements.

Request Syntax

```
{
    "AcceleratorTypes": [ "string" ],
    "AdditionalCodeRepositories": [ "string" ],
    "DefaultCodeRepository": "string",
    "DisassociateAcceleratorTypes": boolean,
    "DisassociateAdditionalCodeRepositories": boolean,
    "DisassociateDefaultCodeRepository": boolean,
    "DisassociateLifecycleConfig": boolean,
    "InstanceType": "string",
    "LifecycleConfigName": "string",
    "NotebookInstanceName": "string",
    "RoleArn": "string",
    "RootAccess": "string",
    "VolumeSizeInGB": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

AcceleratorTypes (p. 410)

A list of the Elastic Inference (EI) instance types to associate with this notebook instance. Currently
only one EI instance type can be associated with a notebook instance. For more information, see
Using Elastic Inference in Amazon SageMaker.

Type: Array of strings

Valid Values: ml.eia1.medium | ml.eia1.large | ml.eia1.xlarge | ml.eia2.medium
| ml.eia2.large | ml.eia2.xlarge

Required: No

AdditionalCodeRepositories (p. 410)

An array of up to three Git repositories to associate with the notebook instance. These can be either
the names of Git repositories stored as resources in your account, or the URL of Git repositories in
AWS CodeCommit or in any other Git repository. These repositories are cloned at the same level
as the default repository of your notebook instance. For more information, see Associating Git
Repositories with Amazon SageMaker Notebook Instances.

Type: Array of strings

Array Members: Maximum number of 3 items.


Pattern: ^https:///[\^/]+/?(.*$|^\^[a-zA-Z0-9]*[a-zA-Z0-9]+$
DefaultCodeRepository (p. 410)

The Git repository to associate with the notebook instance as its default code repository. This can be either the name of a Git repository stored as a resource in your account, or the URL of a Git repository in AWS CodeCommit or in any other Git repository. When you open a notebook instance, it opens in the directory that contains this repository. For more information, see Associating Git Repositories with Amazon SageMaker Notebook Instances.

Type: String


Pattern: ^https://([^/]+)/(.*)|^([a-zA-Z0-9-\[\]^\!$@&*\(\)\'\(\)]*)

DisassociateAcceleratorTypes (p. 410)

A list of the Elastic Inference (EI) instance types to remove from this notebook instance. This operation is idempotent. If you specify an accelerator type that is not associated with the notebook instance when you call this method, it does not throw an error.

Type: Boolean

DisassociateAdditionalCodeRepositories (p. 410)

A list of names or URLs of the default Git repositories to remove from this notebook instance. This operation is idempotent. If you specify a Git repository that is not associated with the notebook instance when you call this method, it does not throw an error.

Type: Boolean

DisassociateDefaultCodeRepository (p. 410)

The name or URL of the default Git repository to remove from this notebook instance. This operation is idempotent. If you specify a Git repository that is not associated with the notebook instance when you call this method, it does not throw an error.

Type: Boolean

DisassociateLifecycleConfig (p. 410)

Set to true to remove the notebook instance lifecycle configuration currently associated with the notebook instance. This operation is idempotent. If you specify a lifecycle configuration that is not associated with the notebook instance when you call this method, it does not throw an error.

Type: Boolean

InstanceType (p. 410)

The Amazon ML compute instance type.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge
| ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge |
| ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge |
| ml.m5.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge |
| ml.c4.8xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge |
| ml.c5.18xlarge | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge |
| ml.c5d.9xlarge | ml.c5d.18xlarge | ml.p2.xlarge | ml.p2.8xlarge |
| ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge |

Required: No

**LifecycleConfigName (p. 410)**

The name of a lifecycle configuration to associate with the notebook instance. For information about lifecycle configurations, see Step 2.1: (Optional) Customize a Notebook Instance.

Type: String

Length Constraints: Maximum length of 63.

Pattern: \^[a-zA-Z0-9](-*[a-zA-Z0-9])* \n
Required: No

**NotebookInstanceName (p. 410)**

The name of the notebook instance to update.

Type: String

Length Constraints: Maximum length of 63.

Pattern: \^[a-zA-Z0-9](-*[a-zA-Z0-9])* \n
Required: Yes

**RoleArn (p. 410)**

The Amazon Resource Name (ARN) of the IAM role that Amazon SageMaker can assume to access the notebook instance. For more information, see Amazon SageMaker Roles.

**Note**

To be able to pass this role to Amazon SageMaker, the caller of this API must have the `iam:PassRole` permission.

Type: String


Pattern: ^arn:aws\[a-z\-\]*:iam::\d{12}:role/\?[a-zA-Z0-9-]+,.@\-\/]+$

Required: No

**RootAccess (p. 410)**

Whether root access is enabled or disabled for users of the notebook instance. The default value is Enabled.

**Note**

If you set this to Disabled, users don’t have root access on the notebook instance, but lifecycle configuration scripts still run with root permissions.

Type: String

Valid Values: Enabled | Disabled
Required: No

**VolumeSizeInGB (p. 410)**

The size, in GB, of the ML storage volume to attach to the notebook instance. The default value is 5 GB. ML storage volumes are encrypted, so Amazon SageMaker can't determine the amount of available free space on the volume. Because of this, you can increase the volume size when you update a notebook instance, but you can't decrease the volume size. If you want to decrease the size of the ML storage volume in use, create a new notebook instance with the desired size.

Type: Integer


Required: No

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceLimitExceeded**

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateNotebookInstanceLifecycleConfig

Service: Amazon SageMaker Service

Updates a notebook instance lifecycle configuration created with the CreateNotebookInstanceLifecycleConfig (p. 78) API.

Request Syntax

```
{
  "NotebookInstanceLifecycleConfigName": "string",
  "OnCreate": [
    {
      "Content": "string"
    }
  ],
  "OnStart": [
    {
      "Content": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**NotebookInstanceLifecycleConfigName (p. 414)**

The name of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-[a-zA-Z0-9]*)*

Required: Yes

**OnCreate (p. 414)**

The shell script that runs only once, when you create a notebook instance. The shell script must be a base64-encoded string.

Type: Array of NotebookInstanceLifecycleHook (p. 632) objects

Array Members: Maximum number of 1 item.

Required: No

**OnStart (p. 414)**

The shell script that runs every time you start a notebook instance, including when you create the notebook instance. The shell script must be a base64-encoded string.

Type: Array of NotebookInstanceLifecycleHook (p. 632) objects

Array Members: Maximum number of 1 item.
Required: No

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateTrial

Service: Amazon SageMaker Service

Updates the display name of a trial.

Request Syntax

```
{
  "DisplayName": "string",
  "TrialName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**DisplayName (p. 416)**

The name of the trial as displayed. The name doesn't need to be unique. If DisplayName isn't specified, TrialName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  
Required: No

**TrialName (p. 416)**

The name of the trial to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  
Required: Yes

Response Syntax

```
{
  "TrialArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.
TrialArn (p. 416)

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial/.*

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ConflictException

There was a conflict when you attempted to modify an experiment, trial, or trial component.

HTTP Status Code: 400

ResourceNotFoundException

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateTrialComponent

Service: Amazon SageMaker Service

Updates one or more properties of a trial component.

Request Syntax

```json
{
    "DisplayName": "string",
    "EndTime": number,
    "InputArtifacts": {
        "string": {
            "MediaType": "string",
            "Value": "string"
        }
    },
    "InputArtifactsToRemove": [ "string" ],
    "OutputArtifacts": {
        "string": {
            "MediaType": "string",
            "Value": "string"
        }
    },
    "OutputArtifactsToRemove": [ "string" ],
    "Parameters": {
        "string": {
            "NumberValue": number,
            "StringValue": "string"
        }
    },
    "ParametersToRemove": [ "string" ],
    "StartTime": number,
    "Status": {
        "Message": "string",
        "PrimaryStatus": "string"
    },
    "TrialComponentName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**DisplayName (p. 418)**

The name of the component as displayed. The name doesn't need to be unique. If `DisplayName` isn't specified, `TrialComponentName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9][-]*[a-zA-Z0-9]$`

Required: No

**EndTime (p. 418)**

When the component ended.
**InputArtifacts (p. 418)**
Replaces all of the component's input artifacts with the specified artifacts.
Type: String to `TrialComponentArtifact (p. 727)` object map
Key Length Constraints: Maximum length of 64.
Key Pattern: .*
Required: No

**InputArtifactsToRemove (p. 418)**
The input artifacts to remove from the component.
Type: Array of strings
Length Constraints: Maximum length of 256.
Pattern: .*
Required: No

**OutputArtifacts (p. 418)**
Replaces all of the component's output artifacts with the specified artifacts.
Type: String to `TrialComponentArtifact (p. 727)` object map
Key Length Constraints: Maximum length of 64.
Key Pattern: .*
Required: No

**OutputArtifactsToRemove (p. 418)**
The output artifacts to remove from the component.
Type: Array of strings
Length Constraints: Maximum length of 256.
Pattern: .*
Required: No

**Parameters (p. 418)**
Replaces all of the component's hyperparameters with the specified hyperparameters.
Type: String to `TrialComponentParameterValue (p. 730)` object map
Key Length Constraints: Maximum length of 256.
Key Pattern: .*
Required: No
ParametersToRemove (p. 418)
The hyperparameters to remove from the component.
Type: Array of strings
Length Constraints: Maximum length of 256.
Pattern: .*
Required: No

StartTime (p. 418)
When the component started.
Type: Timestamp
Required: No

Status (p. 418)
The new status of the component.
Type: TrialComponentStatus (p. 735) object
Required: No

TrialComponentName (p. 418)
The name of the component to update.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9][-]*[a-zA-Z0-9]*$^
Required: Yes

Response Syntax
{
   "TrialComponentArn": "string"
}

Response Elements
If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

TrialComponentArn (p. 420)
The Amazon Resource Name (ARN) of the trial component.
Type: String
Length Constraints: Maximum length of 256.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial-component/.*
Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ConflictException

There was a conflict when you attempted to modify an experiment, trial, or trial component.

HTTP Status Code: 400

ResourceNotFoundException

Resource being access is not found.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateUserProfile

Service: Amazon SageMaker Service

Updates a user profile.

Request Syntax

```json
{
  "DomainId": "string",
  "UserProfileName": "string",
  "UserSettings": {
    "ExecutionRole": "string",
    "JupyterServerAppSettings": {
      "DefaultResourceSpec": {
        "EnvironmentArn": "string",
        "InstanceType": "string"
      }
    },
    "KernelGatewayAppSettings": {
      "DefaultResourceSpec": {
        "EnvironmentArn": "string",
        "InstanceType": "string"
      }
    },
    "SecurityGroups": [ "string" ],
    "SharingSettings": {
      "NotebookOutputOption": "string",
      "S3KmsKeyId": "string",
      "S3OutputPath": "string"
    },
    "TensorBoardAppSettings": {
      "DefaultResourceSpec": {
        "EnvironmentArn": "string",
        "InstanceType": "string"
      }
    }
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**DomainId (p. 422)**

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

**UserProfileName (p. 422)**

The user profile name.

Type: String
Length Constraints: Maximum length of 63.
Pattern: ^[a-zA-Z0-9\-]*[a-zA-Z0-9]\)*
Required: Yes

**UserSettings (p. 422)**
A collection of settings.
Type: UserSettings (p. 749) object
Required: No

**Response Syntax**

```json
{
  "UserProfileArn": "string"
}
```

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.
The following data is returned in JSON format by the service.

**UserProfileArn (p. 423)**
The user profile Amazon Resource Name (ARN).
Type: String
Length Constraints: Maximum length of 256.
Pattern: arn:aws[a-zA-Z\-]*:sagemaker:[a-zA-Z0-9\-]*:[0-9]{12}:user-profile/.*

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 759).

**ResourceInUse**
Resource being accessed is in use.
HTTP Status Code: 400

**ResourceLimitExceeded**
You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.
HTTP Status Code: 400

**ResourceNotFoundException**
Resource being accessed is not found.
HTTP Status Code: 400
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateWorkforce

Service: Amazon SageMaker Service

Restricts access to tasks assigned to workers in the specified workforce to those within specific ranges of IP addresses. You specify allowed IP addresses by creating a list of up to four CIDRs.

By default, a workforce isn't restricted to specific IP addresses. If you specify a range of IP addresses, workers who attempt to access tasks using any IP address outside the specified range are denied access and get a Not Found error message on the worker portal. After restricting access with this operation, you can see the allowed IP values for a private workforce with the DescribeWorkforce (p. 254) operation.

**Important**
This operation applies only to private workforces.

**Request Syntax**

```
{
  "SourceIpConfig": {
    "Cidrs": [ "string" ]
  },
  "WorkforceName": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

**SourceIpConfig (p. 425)**

A list of one to four worker IP address ranges (CIDRs) that can be used to access tasks assigned to this workforce.

Maximum: Four CIDR values
Type: SourceIpConfig (p. 686) object
Required: No

**WorkforceName (p. 425)**

The name of the private workforce whose access you want to restrict. WorkforceName is automatically set to default when a workforce is created and cannot be modified.

Type: String
Pattern: ^[a-zA-Z0-9][-]*[^-]$
Required: Yes

**Response Syntax**

```
{
  "Workforce": {
```

425
"LastUpdatedDate": number,
"SourceIpConfig": {
    "Cidrs": [ "string" ]
},
"WorkforceArn": "string",
"WorkforceName": "string" }

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Workforce (p. 425)

A single private workforce, which is automatically created when you create your first private work team. You can create one private workforce in each AWS Region. By default, any workforce-related API operation used in a specific region will apply to the workforce created in that region. To learn how to create a private workforce, see Create a Private Workforce.

Type: Workforce (p. 753) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateWorkteam
Service: Amazon SageMaker Service

Updates an existing work team with new member definitions or description.

Request Syntax

```json
{
   "Description": "string",
   "MemberDefinitions": [
   {
      "CognitoMemberDefinition": {
         "ClientId": "string",
         "UserGroup": "string",
         "UserPool": "string"
      }
   }
   ],
   "NotificationConfiguration": {
      "NotificationTopicArn": "string"
   },
   "WorkteamName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 757).

The request accepts the following data in JSON format.

Description (p. 427)

An updated description for the work team.

Type: String


Pattern: .+

Required: No

MemberDefinitions (p. 427)

A list of MemberDefinition objects that contain the updated work team members.

Type: Array of MemberDefinition (p. 596) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

NotificationConfiguration (p. 427)

Configures SNS topic notifications for available or expiring work items

Type: NotificationConfiguration (p. 636) object

Required: No
WorkteamName (p. 427)

The name of the work team to update.

Type: String


Pattern: ^[a-zA-Z0-9-]*[a-zA-Z0-9]*/

Required: Yes

Response Syntax

```
{"Workteam": {
  "CreateDate": number,
  "Description": "string",
  "LastUpdatedDate": number,
  "MemberDefinitions": [
    {
      "CognitoMemberDefinition": {
        "ClientId": "string",
        "UserGroup": "string",
        "UserPool": "string"
      }
    }
  ],
  "NotificationConfiguration": {
    "NotificationTopicArn": "string"
  },
  "ProductListingIds": [ "string" ],
  "SubDomain": "string",
  "WorkteamArn": "string",
  "WorkteamName": "string"
}}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Workteam (p. 428)

A Workteam object that describes the updated work team.

Type: Workteam (p. 755) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

ResourceLimitExceeded

You have exceeded an Amazon SageMaker resource limit. For example, you might have too many training jobs created.
HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

Amazon SageMaker Runtime

The following actions are supported by Amazon SageMaker Runtime:

- InvokeEndpoint (p. 430)
InvokeEndpoint
Service: Amazon SageMaker Runtime

After you deploy a model into production using Amazon SageMaker hosting services, your client applications use this API to get inferences from the model hosted at the specified endpoint.

For an overview of Amazon SageMaker, see How It Works.

Amazon SageMaker strips all POST headers except those supported by the API. Amazon SageMaker might add additional headers. You should not rely on the behavior of headers outside those enumerated in the request syntax.

Calls to InvokeEndpoint are authenticated by using AWS Signature Version 4. For information, see Authenticating Requests (AWS Signature Version 4) in the Amazon S3 API Reference.

A customer's model containers must respond to requests within 60 seconds. The model itself can have a maximum processing time of 60 seconds before responding to the /invocations. If your model is going to take 50-60 seconds of processing time, the SDK socket timeout should be set to be 70 seconds.

Note
Endpoints are scoped to an individual account, and are not public. The URL does not contain the account ID, but Amazon SageMaker determines the account ID from the authentication token that is supplied by the caller.

Request Syntax

<table>
<thead>
<tr>
<th>POST /endpoints/EndpointName/invocations HTTP/1.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content-Type: Content_Type</td>
</tr>
<tr>
<td>Accept: Accept</td>
</tr>
<tr>
<td>X-Amzn-SageMaker-Custom-Attributes: CustomAttributes</td>
</tr>
<tr>
<td>X-Amzn-SageMaker-Target-Model: TargetModel</td>
</tr>
</tbody>
</table>

Body

URI Request Parameters

The request requires the following URI parameters.

Accept (p. 430)

The desired MIME type of the inference in the response.

Length Constraints: Maximum length of 1024.

Pattern: \p{ASCII}*

ContentType (p. 430)

The MIME type of the input data in the request body.

Length Constraints: Maximum length of 1024.

Pattern: \p{ASCII}*

CustomAttributes (p. 430)

Provides additional information about a request for an inference submitted to a model hosted at an Amazon SageMaker endpoint. The information is an opaque value that is forwarded verbatim. You could use this value, for example, to provide an ID that you can use to track a request or to provide other metadata that a service endpoint was programmed to process. The value must consist of no
more than 1024 visible US-ASCII characters as specified in Section 3.3.6. Field Value Components of the Hypertext Transfer Protocol (HTTP/1.1). This feature is currently supported in the AWS SDKs but not in the Amazon SageMaker Python SDK.

Length Constraints: Maximum length of 1024.

Pattern: \p{ASCII}*

**EndpointName (p. 430)**

The name of the endpoint that you specified when you created the endpoint using the CreateEndpoint API.

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*

**TargetModel (p. 430)**

The model to request for inference when invoking a multi-model endpoint.


Pattern: \A\S[\p{Print}]\z

**Request Body**

The request accepts the following binary data.

**Body (p. 430)**

Provides input data, in the format specified in the Content-Type request header. Amazon SageMaker passes all of the data in the body to the model.

For information about the format of the request body, see Common Data Formats-Inference.

Length Constraints: Maximum length of 5242880.

**Response Syntax**

<table>
<thead>
<tr>
<th>HTTP/1.1 200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content-Type: ContentType</td>
</tr>
<tr>
<td>x-Amzn-Invoked-Production-Variant: InvokedProductionVariant</td>
</tr>
<tr>
<td>X-Amzn-SageMaker-Custom-Attributes: CustomAttributes</td>
</tr>
</tbody>
</table>

**Body**

**Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The response returns the following HTTP headers.

**ContentType (p. 431)**

The MIME type of the inference returned in the response body.

Length Constraints: Maximum length of 1024.
CustomAttributes (p. 431)

Provides additional information in the response about the inference returned by a model hosted at an Amazon SageMaker endpoint. The information is an opaque value that is forwarded verbatim. You could use this value, for example, to return an ID received in the CustomAttributes header of a request or other metadata that a service endpoint was programmed to produce. The value must consist of no more than 1024 visible US-ASCII characters as specified in Section 3.3.6. Field Value Components of the Hypertext Transfer Protocol (HTTP/1.1). If the customer wants the custom attribute returned, the model must set the custom attribute to be included on the way back.

This feature is currently supported in the AWS SDKs but not in the Amazon SageMaker Python SDK.

Length Constraints: Maximum length of 1024.

InvokedProductionVariant (p. 431)

Identifies the production variant that was invoked.

Length Constraints: Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 759).

InternalFailure

An internal failure occurred.

HTTP Status Code: 500

ModelError

Model (owned by the customer in the container) returned 4xx or 5xx error code.

HTTP Status Code: 424

ServiceUnavailable

The service is unavailable. Try your call again.

HTTP Status Code: 503

ValidationError

Inspect your request and try again.

HTTP Status Code: 400
Example

Pass a trace ID in the CustomAttribute of a request and return it in the CustomAttribute of the response.

In this example a trace ID is passed to the service endpoint in the CustomAttributes header of the request and then retrieved and returned in the CustomAttributes header of the response.

Sample Request

```python
import boto3
client = boto3.client('sagemaker-runtime')

custom_attributes = "c000b4f9-df62-4c85-a0bf-7c525f9104a4"  # An example of a trace ID.
endpoint_name = "..."                                       # Your endpoint name.
content_type = "..."                                        # The MIME type of the input
data in the request body.
accept = "..."                                              # The desired MIME type of the inference in the response.
payload = "..."                                             # Payload for inference.
```

Sample Response

```python
response = client.invoke_endpoint(
    EndpointName=endpoint_name,
   CustomAttributes=custom_attributes,
   ContentType=content_type,
   Accept=accept,
   Body=payload
)

print(response['CustomAttributes'])                         # If model receives and updates
# the custom_attributes header
# by adding "Trace id: " in
# front of custom_attributes in the request,
# custom_attributes in response
# becomes
# "Trace ID: c000b4f9-

```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
Data Types

The following data types are supported by Amazon SageMaker Service:

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- AlgorithmStatusDetails (p. 446)
- AlgorithmStatusItem (p. 447)
- AlgorithmSummary (p. 448)
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The following data types are supported by Amazon SageMaker Runtime:

Amazon SageMaker Service

The following data types are supported by Amazon SageMaker Service:

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- AlgorithmStatusItem (p. 447)
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AlgorithmSpecification

Service: Amazon SageMaker Service

Specifies the training algorithm to use in a CreateTrainingJob (p. 90) request.

For more information about algorithms provided by Amazon SageMaker, see Algorithms. For information about using your own algorithms, see Using Your Own Algorithms with Amazon SageMaker.

Contents

AlgorithmName

The name of the algorithm resource to use for the training job. This must be an algorithm resource that you created or subscribe to on AWS Marketplace. If you specify a value for this parameter, you can't specify a value for TrainingImage.

Type: String


Pattern: (arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:[a-z\-]*\//)?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<!-)$

Required: No

EnableSageMakerMetricsTimeSeries

To generate and save time-series metrics during training, set to true. The default is false and time-series metrics aren't generated except in the following cases:

- You use one of the Amazon SageMaker built-in algorithms
- You use one of the following Prebuilt Amazon SageMaker Docker Images:
  - Tensorflow (version >= 1.15)
  - MXNet (version >= 1.6)
  - PyTorch (version >= 1.3)
- You specify at least one MetricDefinition (p. 598)

Type: Boolean

Required: No

MetricDefinitions

A list of metric definition objects. Each object specifies the metric name and regular expressions used to parse algorithm logs. Amazon SageMaker publishes each metric to Amazon CloudWatch.

Type: Array of MetricDefinition (p. 598) objects

Array Members: Minimum number of 0 items. Maximum number of 40 items.

Required: No

TrainingImage

The registry path of the Docker image that contains the training algorithm. For information about docker registry paths for built-in algorithms, see Algorithms Provided by Amazon SageMaker: Common Parameters. Amazon SageMaker supports both registry/repository[:tag] and registry/repository[@digest] image path formats. For more information, see Using Your Own Algorithms with Amazon SageMaker.

Type: String
Length Constraints: Maximum length of 255.

Pattern: .*

Required: No

**TrainingInputMode**

The input mode that the algorithm supports. For the input modes that Amazon SageMaker algorithms support, see *Algorithms*. If an algorithm supports the `File` input mode, Amazon SageMaker downloads the training data from S3 to the provisioned ML storage Volume, and mounts the directory to docker volume for training container. If an algorithm supports the `Pipe` input mode, Amazon SageMaker streams data directly from S3 to the container.

In File mode, make sure you provision ML storage volume with sufficient capacity to accommodate the data download from S3. In addition to the training data, the ML storage volume also stores the output model. The algorithm container use ML storage volume to also store intermediate information, if any.

For distributed algorithms using File mode, training data is distributed uniformly, and your training duration is predictable if the input data objects size is approximately same. Amazon SageMaker does not split the files any further for model training. If the object sizes are skewed, training won't be optimal as the data distribution is also skewed where one host in a training cluster is overloaded, thus becoming bottleneck in training.

Type: String

Valid Values: `Pipe` | `File`

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AlgorithmStatusDetails

Service: Amazon SageMaker Service

Specifies the validation and image scan statuses of the algorithm.

Contents

ImageScanStatuses

The status of the scan of the algorithm's Docker image container.

Type: Array of AlgorithmStatusItem (p. 447) objects

Required: No

ValidationStatuses

The status of algorithm validation.

Type: Array of AlgorithmStatusItem (p. 447) objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AlgorithmStatusItem

Service: Amazon SageMaker Service

Represents the overall status of an algorithm.

Contents

FailureReason

if the overall status is Failed, the reason for the failure.

Type: String

Required: No

Name

The name of the algorithm for which the overall status is being reported.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

Required: Yes

Status

The current status.

Type: String

Valid Values: Not Started | In Progress | Completed | Failed

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AlgorithmSummary
Service: Amazon SageMaker Service
Provides summary information about an algorithm.

Contents

AlgorithmArn
The Amazon Resource Name (ARN) of the algorithm.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 2048.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:algorithm/.*
Required: Yes

AlgorithmDescription
A brief description of the algorithm.
Type: String
Length Constraints: Maximum length of 1024.
Pattern: \[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*
Required: No

AlgorithmName
The name of the algorithm that is described by the summary.
Type: String
Pattern: ^[a-zA-Z0-9\-]+(\[a-zA-Z0-9\-]*\[a-zA-Z0-9\-]*\])*%
Required: Yes

AlgorithmStatus
The overall status of the algorithm.
Type: String
Valid Values: Pending | InProgress | Completed | Failed | Deleting
Required: Yes

CreationTime
A timestamp that shows when the algorithm was created.
Type: Timestamp
Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for Ruby V3
AlgorithmValidationProfile

Service: Amazon SageMaker Service

Defines a training job and a batch transform job that Amazon SageMaker runs to validate your algorithm.

The data provided in the validation profile is made available to your buyers on AWS Marketplace.

Contents

ProfileName

The name of the profile for the algorithm. The name must have 1 to 63 characters. Valid characters are a-z, A-Z, 0-9, and - (hyphen).

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

Required: Yes

TrainingJobDefinition

The TrainingJobDefinition object that describes the training job that Amazon SageMaker runs to validate your algorithm.

Type: TrainingJobDefinition (p. 701) object

Required: Yes

TransformJobDefinition

The TransformJobDefinition object that describes the transform job that Amazon SageMaker runs to validate your algorithm.

Type: TransformJobDefinition (p. 712) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AlgorithmValidationSpecification

Service: Amazon SageMaker Service

Specifies configurations for one or more training jobs that Amazon SageMaker runs to test the algorithm.

Contents

ValidationProfiles

An array of AlgorithmValidationProfile objects, each of which specifies a training job and batch transform job that Amazon SageMaker runs to validate your algorithm.

Type: Array of AlgorithmValidationProfile (p. 450) objects

Array Members: Fixed number of 1 item.

Required: Yes

ValidationRole

The IAM roles that Amazon SageMaker uses to run the training jobs.

Type: String


Pattern: ^arn:aws[a-z\-]*:iam::\d{12}:role/?[a-zA-Z0-9+=,.@-_\//]+$  

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AnnotationConsolidationConfig
Service: Amazon SageMaker Service
Configures how labels are consolidated across human workers.

Contents

AnnotationConsolidationLambdaArn

The Amazon Resource Name (ARN) of a Lambda function implements the logic for annotation consolidation.

For the built-in bounding box, image classification, semantic segmentation, and text classification task types, Amazon SageMaker Ground Truth provides the following Lambda functions:

- **Bounding box** - Finds the most similar boxes from different workers based on the Jaccard index of the boxes.

  - `arn:aws:lambda:*:*:function:ACS-BoundingBox`

- **Image classification** - Uses a variant of the Expectation Maximization approach to estimate the true class of an image based on annotations from individual workers.

  - `arn:aws:lambda:*:*:function:ACS-ImageMultiClass`
• **Multi-label image classification** - Uses a variant of the Expectation Maximization approach to estimate the true classes of an image based on annotations from individual workers.

  • **Semantic segmentation** - Treats each pixel in an image as a multi-class classification and treats pixel annotations from workers as "votes" for the correct label.
• **Text classification** - Uses a variant of the Expectation Maximization approach to estimate the true class of text based on annotations from individual workers.

• **Multi-label text classification** - Uses a variant of the Expectation Maximization approach to estimate the true classes of text based on annotations from individual workers.
• **Named entity recognition** - Groups similar selections and calculates aggregate boundaries, resolving to most-assigned label.

• **Bounding box verification** - Uses a variant of the Expectation Maximization approach to estimate the true class of verification judgement for bounding box labels based on annotations from individual workers.
• **Semantic segmentation verification** - Uses a variant of the Expectation Maximization approach to estimate the true class of verification judgment for semantic segmentation labels based on annotations from individual workers.
• **Bounding box adjustment** - Finds the most similar boxes from different workers based on the Jaccard index of the adjusted annotations.


• **Semantic segmentation adjustment** - Treats each pixel in an image as a multi-class classification and treats pixel adjusted annotations from workers as "votes" for the correct label.


For more information, see Annotation Consolidation.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: Arn:aws[a-zA-Z-]*:lambda:[a-zA-Z]{2}[-a-zA-Z0-9-_.]+(:(\$LATEST|[a-zA-Z0-9-]+))?

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AppDetails
Service: Amazon SageMaker Service

The app's details.

Contents

AppName

The name of the app.
Type: String
Length Constraints: Maximum length of 63.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  
Required: No

AppType

The type of app.
Type: String
Valid Values: JupyterServer | KernelGateway | TensorBoard
Required: No

CreationTime

The creation time.
Type: Timestamp
Required: No

DomainId

The domain ID.
Type: String
Length Constraints: Maximum length of 63.
Required: No

Status

The status.
Type: String
Valid Values: Deleted | Deleting | Failed | InService | Pending
Required: No

UserProfileName

The user profile name.
Type: String
Length Constraints: Maximum length of 63.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  
Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AppSpecification
Service: Amazon SageMaker Service

Configuration to run a processing job in a specified container image.

Contents

ContainerArguments
The arguments for a container used to run a processing job.
Type: Array of strings
Array Members: Minimum number of 1 item. Maximum number of 100 items.
Length Constraints: Maximum length of 256.
Pattern: . *
Required: No

ContainerEntrypoint
The entrypoint for a container used to run a processing job.
Type: Array of strings
Array Members: Minimum number of 1 item. Maximum number of 100 items.
Length Constraints: Maximum length of 256.
Pattern: . *
Required: No

ImageUri
The container image to be run by the processing job.
Type: String
Length Constraints: Maximum length of 255.
Pattern: . *
Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AutoMLCandidate

Service: Amazon SageMaker Service

An AutoPilot job will return recommendations, or candidates. Each candidate has further details about the steps involved, and the status.

Contents

**CandidateName**

The candidate name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: Yes

**CandidateStatus**

The candidate's status.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

Required: Yes

**CandidateSteps**

The candidate's steps.

Type: Array of AutoMLCandidateStep (p. 464) objects

Required: Yes

**CreationTime**

The creation time.

Type: Timestamp

Required: Yes

**EndTime**

The end time.

Type: Timestamp

Required: No

**FailureReason**

The failure reason.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**FinalAutoMLJobObjectiveMetric**

The candidate result from a job.
Type: `FinalAutoMLJobObjectiveMetric (p. 529)` object

Required: No

**InferenceContainers**

The inference containers.

Type: Array of `AutoMLContainerDefinition (p. 466)` objects

Array Members: Maximum number of 5 items.

Required: No

**LastModifiedTime**

The last modified time.

Type: Timestamp

Required: Yes

**ObjectiveStatus**

The objective status.

Type: String

Valid Values: Succeeded | Pending | Failed

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AutoMLCandidateStep

Service: Amazon SageMaker Service

Information about the steps for a Candidate, and what step it is working on.

Contents

CandidateStepArn

The ARN for the Candidate's step.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-]*:\d{12}:.*/.*

Required: Yes

CandidateStepName

The name for the Candidate's step.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: Yes

CandidateStepType

Whether the Candidate is at the transform, training, or processing step.

Type: String

Valid Values: AWS::SageMaker::TrainingJob | AWS::SageMaker::TransformJob | AWS::SageMaker::ProcessingJob

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AutoMLChannel
Service: Amazon SageMaker Service

Similar to Channel. A channel is a named input source that training algorithms can consume. Refer to Channel for detailed descriptions.

Contents

**CompressionType**
You can use Gzip or None. The default value is None.
Type: String
Valid Values: None | Gzip
Required: No

**DataSource**
The data source.
Type: AutoMLDataSource (p. 467) object
Required: Yes

**TargetAttributeName**
The name of the target variable in supervised learning, a.k.a. 'y'.
Type: String
Length Constraints: Minimum length of 1.
Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AutoMLContainerDefinition
Service: Amazon SageMaker Service

A list of container definitions that describe the different containers that make up one AutoML candidate. Refer to ContainerDefinition for more details.

Contents

Environment

Environment variables to set in the container. Refer to ContainerDefinition for more details.

Type: String to string map

Key Length Constraints: Maximum length of 1024.

Key Pattern: [ a-zA-Z_][a-zA-Z0-9_]*

Value Length Constraints: Maximum length of 1024.

Value Pattern: [\S\s]*

Required: No

Image

The ECR path of the container. Refer to ContainerDefinition for more details.

Type: String

Length Constraints: Maximum length of 255.

Pattern: [\S]+

Required: Yes

ModelDataUrl

The location of the model artifacts. Refer to ContainerDefinition for more details.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3):/([^/]+)?([^/]+)\?\?\*$

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AutoMLDataSource
Service: Amazon SageMaker Service

The data source for the AutoPilot job.

Contents

S3DataSource

The Amazon S3 location of the input data.

Note
The input data must be in CSV format and contain at least 1000 rows.

Type: AutoMLS3DataSource (p. 475) object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AutoMLJobArtifacts
Service: Amazon SageMaker Service

Artifacts that are generated during a job.

Contents

CandidateDefinitionNotebookLocation
The URL to the notebook location.
Type: String
Length Constraints: Minimum length of 1.
Required: No

DataExplorationNotebookLocation
The URL to the notebook location.
Type: String
Length Constraints: Minimum length of 1.
Required: No

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AutoMLJobCompletionCriteria

Service: Amazon SageMaker Service

How long a job is allowed to run, or how many candidates a job is allowed to generate.

Contents

MaxAutoMLJobRuntimeInSeconds

The maximum time, in seconds, an AutoML job is allowed to wait for a trial to complete. It must be equal to or greater than MaxRuntimePerTrainingJobInSeconds.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

MaxCandidates

The maximum number of times a training job is allowed to run.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

MaxRuntimePerTrainingJobInSeconds

The maximum time, in seconds, a job is allowed to run.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AutoMLJobConfig

Service: Amazon SageMaker Service

A collection of settings used for a job.

Contents

CompletionCriteria

How long a job is allowed to run, or how many candidates a job is allowed to generate.

Type: AutoMLJobCompletionCriteria (p. 469) object

Required: No

SecurityConfig

Security configuration for traffic encryption or Amazon VPC settings.

Type: AutoMLSecurityConfig (p. 476) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AutoMLJobObjective
Service: Amazon SageMaker Service

Applies a metric to minimize or maximize for the job's objective.

Contents

MetricName
The name of the metric.
Type: String
Valid Values: Accuracy | MSE | F1 | F1macro
Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AutoMLJobSummary

Service: Amazon SageMaker Service

Provides a summary about a job.

Contents

**AutoMLJobArn**

The ARN of the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:automl-job/.*

Required: Yes

**AutoMLJobName**

The name of the object you are requesting.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])* 

Required: Yes

**AutoMLJobSecondaryStatus**

The job's secondary status.

Type: String

Valid Values: Starting | AnalyzingData | FeatureEngineering | ModelTuning | MaxCandidatesReached | Failed | Stopped | MaxAutoMLJobRuntimeReached | Stopping | CandidateDefinitionsGenerated

Required: Yes

**AutoMLJobStatus**

The job's status.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

Required: Yes

**CreationTime**

When the job was created.

Type: Timestamp

Required: Yes

**EndTime**

The end time.
AutoMLJobSummary

Type: Timestamp
Required: No

FailureReason

The failure reason.
Type: String
Length Constraints: Maximum length of 1024.
Required: No

LastModifiedTime

When the job was last modified.
Type: Timestamp
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AutoMLOutputDataConfig
Service: Amazon SageMaker Service

The output data configuration.

Contents

KmsKeyId

The AWS KMS encryption key ID.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: . *

Required: No

S3OutputPath

The Amazon S3 output path. Must be 128 characters or less.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^/]+)/(.*)$

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AutoMLS3DataSource

Service: Amazon SageMaker Service

The Amazon S3 data source.

Contents

S3DataType

The data type.

Type: String

Valid Values: ManifestFile | S3Prefix

Required: Yes

S3Uri

The URL to the Amazon S3 data source.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3):///([^/]+/)?(.*$)

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AutoMLSecurityConfig

Service: Amazon SageMaker Service

Security options.

Contents

EnableInterContainerTrafficEncryption

Whether to use traffic encryption between the container layers.

Type: Boolean

Required: No

VolumeKmsKeyId

The key used to encrypt stored data.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: . *

Required: No

VpcConfig

VPC configuration.

Type: VpcConfig (p. 752) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
CaptureContentTypeHeader

Service: Amazon SageMaker Service

Contents

CsvContentTypes

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*\/[a-zA-Z0-9](-*[a-zA-Z0-9.])* 

Required: No

JsonContentTypes

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*\/[a-zA-Z0-9](-*[a-zA-Z0-9.])* 

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
CaptureOption
Service: Amazon SageMaker Service

Contents

CaptureMode
Type: String

Valid Values: Input | Output

Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
CategoricalParameterRange
Service: Amazon SageMaker Service

A list of categorical hyperparameters to tune.

Contents

Name

The name of the categorical hyperparameter to tune.

Type: String

Length Constraints: Maximum length of 256.

Pattern: . *

Required: Yes

Values

A list of the categories for the hyperparameter.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Length Constraints: Maximum length of 256.

Pattern: . *

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
CategoricalParameterRangeSpecification

Service: Amazon SageMaker Service

 Defines the possible values for a categorical hyperparameter.

Contents

Values

The allowed categories for the hyperparameter.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Length Constraints: Maximum length of 256.

Pattern: . *

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Channel
Service: Amazon SageMaker Service

A channel is a named input source that training algorithms can consume.

Contents

ChannelName

The name of the channel.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: [A-Za-z0-9\.-_]+

Required: Yes

CompressionType

If training data is compressed, the compression type. The default value is None. CompressionType is used only in Pipe input mode. In File mode, leave this field unset or set it to None.

Type: String

Valid Values: None | Gzip

Required: No

ContentType

The MIME type of the data.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .*

Required: No

DataSource

The location of the channel data.

Type: DataSource (p. 502) object

Required: Yes

InputMode

(Optional) The input mode to use for the data channel in a training job. If you don't set a value for InputMode, Amazon SageMaker uses the value set for TrainingInputMode. Use this parameter to override the TrainingInputMode setting in a AlgorithmSpecification (p. 444) request when you have a channel that needs a different input mode from the training job's general setting. To download the data from Amazon Simple Storage Service (Amazon S3) to the provisioned ML storage volume, and mount the directory to a Docker volume, use File input mode. To stream data directly from Amazon S3 to the container, choose Pipe input mode.

To use a model for incremental training, choose File input model.

Type: String
Valid Values: Pipe | File
Required: No

**RecordWrapperType**

Specify RecordIO as the value when input data is in raw format but the training algorithm requires the RecordIO format. In this case, Amazon SageMaker wraps each individual S3 object in a RecordIO record. If the input data is already in RecordIO format, you don’t need to set this attribute. For more information, see Create a Dataset Using RecordIO.

In File mode, leave this field unset or set it to None.

Type: String

Valid Values: None | RecordIO
Required: No

**ShuffleConfig**

A configuration for a shuffle option for input data in a channel. If you use S3Prefix for S3DataType, this shuffles the results of the S3 key prefix matches. If you use ManifestFile, the order of the S3 object references in the ManifestFile is shuffled. If you use AugmentedManifestFile, the order of the JSON lines in the AugmentedManifestFile is shuffled. The shuffling order is determined using the Seed value.

For Pipe input mode, shuffling is done at the start of every epoch. With large datasets this ensures that the order of the training data is different for each epoch, it helps reduce bias and possible overfitting. In a multi-node training job when ShuffleConfig is combined with S3DataDistributionType of ShardedByS3Key, the data is shuffled across nodes so that the content sent to a particular node on the first epoch might be sent to a different node on the second epoch.

Type: **ShuffleConfig** (p. 683) object
Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ChannelSpecification

Service: Amazon SageMaker Service

Defines a named input source, called a channel, to be used by an algorithm.

Contents

Description
A brief description of the channel.
Type: String
Length Constraints: Maximum length of 1024.
Pattern: \[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*
Required: No

IsRequired
Indicates whether the channel is required by the algorithm.
Type: Boolean
Required: No

Name
The name of the channel.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 64.
Pattern: [A-Za-z0-9\-_.]+
Required: Yes

SupportedCompressionTypes
The allowed compression types, if data compression is used.
Type: Array of strings
Valid Values: None | Gzip
Required: No

SupportedContentTypes
The supported MIME types for the data.
Type: Array of strings
Length Constraints: Maximum length of 256.
Pattern: .*
Required: Yes

SupportedInputModes
The allowed input mode, either FILE or PIPE.
In FILE mode, Amazon SageMaker copies the data from the input source onto the local Amazon Elastic Block Store (Amazon EBS) volumes before starting your training algorithm. This is the most commonly used input mode.

In PIPE mode, Amazon SageMaker streams input data from the source directly to your algorithm without using the EBS volume.

Type: Array of strings

Array Members: Minimum number of 1 item.

Valid Values: Pipe | File

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**CheckpointConfig**

Service: Amazon SageMaker Service

Contains information about the output location for managed spot training checkpoint data.

**Contents**

**LocalPath**

(Optional) The local directory where checkpoints are written. The default directory is `/opt/ml/checkpoints/`.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: .*

Required: No

**S3Uri**

Identifies the S3 path where you want Amazon SageMaker to store checkpoints. For example, `s3://bucket-name/key-name-prefix`.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://(.*)$/`?

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**CodeRepositorySummary**
Service: Amazon SageMaker Service

Specifies summary information about a Git repository.

**Contents**

**CodeRepositoryArn**

The Amazon Resource Name (ARN) of the Git repository.
Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:code-repository/.*

Required: Yes

**CodeRepositoryName**

The name of the Git repository.
Type: String


Pattern: ^[a-zA-Z0-9\-]*[a-zA-Z0-9\-]*$

Required: Yes

**CreationTime**

The date and time that the Git repository was created.
Type: Timestamp

Required: Yes

**GitConfig**

Configuration details for the Git repository, including the URL where it is located and the ARN of the AWS Secrets Manager secret that contains the credentials used to access the repository.

Type: GitConfig (p. 534) object

Required: No

**LastModifiedTime**

The date and time that the Git repository was last modified.
Type: Timestamp

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for Ruby V3
CognitoMemberDefinition

Service: Amazon SageMaker Service

Identifies an Amazon Cognito user group. A user group can be used in one or more work teams.

Contents

ClientId

An identifier for an application client. You must create the app client ID using Amazon Cognito.

Type: String


Pattern: [\w]+

Required: Yes

UserGroup

An identifier for a user group.

Type: String


Pattern: [\p{L}\p{M}\p{S}\p{N}\p{P}]+

Required: Yes

UserPool

An identifier for a user pool. The user pool must be in the same region as the service that you are calling.

Type: String


Pattern: [\w-]+[0-9a-zA-Z]+

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
CollectionConfiguration
Service: Amazon SageMaker Service
Configuration information for tensor collections.

Contents

**CollectionName**

The name of the tensor collection. The name must be unique relative to other rule configuration names.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .*

Required: No

**CollectionParameters**

Parameter values for the tensor collection. The allowed parameters are "name", "include_regex", "reduction_config", "save_config", "tensor_names", and "save_histogram".

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Key Pattern: .*

Value Length Constraints: Maximum length of 256.

Value Pattern: .*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
CompilationJobSummary

Service: Amazon SageMaker Service

A summary of a model compilation job.

Contents

CompilationEndTime

The time when the model compilation job completed.

Type: Timestamp

Required: No

CompilationJobArn

The Amazon Resource Name (ARN) of the model compilation job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: %arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:compilation-job/.*%n

Required: Yes

CompilationJobName

The name of the model compilation job that you want a summary for.

Type: String


Pattern: ^[a-zA-Z0-9\-]*\*[a-zA-Z0-9\-]*

Required: Yes

CompilationJobStatus

The status of the model compilation job.

Type: String

Valid Values: INPROGRESS | COMPLETED | FAILED | STARTING | STOPPING | STOPPED

Required: Yes

CompilationStartTime

The time when the model compilation job started.

Type: Timestamp

Required: No

CompilationTargetDevice

The type of device that the model will run on after compilation has completed.

Type: String

Valid Values: lambda | ml_m4 | ml_m5 | ml_c4 | ml_c5 | ml_p2 | ml_p3 | ml_inf1
| jetson_tx1 | jetson_tx2 | jetson_nano | jetson_xavier | rasp3b | imx8qm |
CompilationJobSummary

deeplens | rk3399 | rk3288 | aisage | sbe_c | qcs605 | qcs603 | sitara_am57x | amba_cv22

Required: Yes

CreationTime

The time when the model compilation job was created.

Type: Timestamp

Required: Yes

LastModifiedTime

The time when the model compilation job was last modified.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ContainerDefinition

Service: Amazon SageMaker Service

Describes the container, as part of model definition.

Contents

ContainerHostname

This parameter is ignored for models that contain only a PrimaryContainer.

When a ContainerDefinition is part of an inference pipeline, the value of the parameter uniquely identifies the container for the purposes of logging and metrics. For information, see Use Logs and Metrics to Monitor an Inference Pipeline. If you don't specify a value for this parameter for a ContainerDefinition that is part of an inference pipeline, a unique name is automatically assigned based on the position of the ContainerDefinition in the pipeline. If you specify a value for the ContainerHostName for any ContainerDefinition that is part of an inference pipeline, you must specify a value for the ContainerHostName parameter of every ContainerDefinition in that pipeline.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*

Required: No

Environment

The environment variables to set in the Docker container. Each key and value in the Environment string to string map can have length of up to 1024. We support up to 16 entries in the map.

Type: String to string map

Key Length Constraints: Maximum length of 1024.

Key Pattern: [a-zA-Z_][a-zA-Z0-9_]*

Value Length Constraints: Maximum length of 1024.

Value Pattern: [\S\s]*

Required: No

Image

The Amazon EC2 Container Registry (Amazon ECR) path where inference code is stored. If you are using your own custom algorithm instead of an algorithm provided by Amazon SageMaker, the inference code must meet Amazon SageMaker requirements. Amazon SageMaker supports both registry/repository[:tag] and registry/repository[@digest] image path formats. For more information, see Using Your Own Algorithms with Amazon SageMaker

Type: String

Length Constraints: Maximum length of 255.

Pattern: [\S]+

Required: No
Mode

Whether the container hosts a single model or multiple models.

Type: String

Valid Values: SingleModel | MultiModel

Required: No

ModelDataUrl

The S3 path where the model artifacts, which result from model training, are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix). The S3 path is required for Amazon SageMaker built-in algorithms, but not if you use your own algorithms. For more information on built-in algorithms, see Common Parameters.

If you provide a value for this parameter, Amazon SageMaker uses AWS Security Token Service to download model artifacts from the S3 path you provide. AWS STS is activated in your IAM user account by default. If you previously deactivated AWS STS for a region, you need to reactivate AWS STS for that region. For more information, see Activating and Deactivating AWS STS in an AWS Region in the AWS Identity and Access Management User Guide.

Important

If you use a built-in algorithm to create a model, Amazon SageMaker requires that you provide a S3 path to the model artifacts in ModelDataUrl.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^/]+)/(.*)$

Required: No

ModelPackageName

The name or Amazon Resource Name (ARN) of the model package to use to create the model.

Type: String


Pattern: (arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:[a-z\-]*\//)?([a-zA-z\-0-9][a-zA-z\-0-9-]{0,62})(?<!-)$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ContinuousParameterRange
Service: Amazon SageMaker Service
A list of continuous hyperparameters to tune.

Contents

MaxValue
The maximum value for the hyperparameter. The tuning job uses floating-point values between
MinValue value and this value for tuning.
Type: String
Length Constraints: Maximum length of 256.
Pattern: .*
Required: Yes

MinValue
The minimum value for the hyperparameter. The tuning job uses floating-point values between this
value and MaxValue for tuning.
Type: String
Length Constraints: Maximum length of 256.
Pattern: .*
Required: Yes

Name
The name of the continuous hyperparameter to tune.
Type: String
Length Constraints: Maximum length of 256.
Pattern: .*
Required: Yes

ScalingType
The scale that hyperparameter tuning uses to search the hyperparameter range. For information
about choosing a hyperparameter scale, see Hyperparameter Scaling. One of the following values:
Auto
Amazon SageMaker hyperparameter tuning chooses the best scale for the hyperparameter.
Linear
Hyperparameter tuning searches the values in the hyperparameter range by using a linear scale.
Logarithmic
Hyperparameter tuning searches the values in the hyperparameter range by using a logarithmic scale.
Logarithmic scaling works only for ranges that have only values greater than 0.
ReverseLogarithmic

Hyperparameter tuning searches the values in the hyperparameter range by using a reverse logarithmic scale.

Reverse logarithmic scaling works only for ranges that are entirely within the range $0 \leq x < 1.0$.

Type: String

Valid Values: Auto | Linear | Logarithmic | ReverseLogarithmic

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ContinuousParameterRangeSpecification

Service: Amazon SageMaker Service

Defines the possible values for a continuous hyperparameter.

Contents

MaxValue

The maximum floating-point value allowed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: . *

Required: Yes

MinValue

The minimum floating-point value allowed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: . *

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
DataCaptureConfig
Service: Amazon SageMaker Service

Contents

CaptureContentTypeHeader
Type: CaptureContentTypeHeader (p. 477) object
Required: No

CaptureOptions
Type: Array of CaptureOption (p. 478) objects
Array Members: Minimum number of 1 item. Maximum number of 2 items.
Required: Yes

DestinationS3Uri
Type: String
Length Constraints: Maximum length of 512.
Pattern: ^(https|s3)://([^/]+)/(.*$)
Required: Yes

EnableCapture
Type: Boolean
Required: No

InitialSamplingPercentage
Type: Integer
Valid Range: Minimum value of 0. Maximum value of 100.
Required: Yes

KmsKeyId
Type: String
Length Constraints: Maximum length of 2048.
Pattern: . *
Required: No

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**DataCaptureConfigSummary**

Service: Amazon SageMaker Service

**Contents**

**CaptureStatus**

Type: String

Valid Values: Started | Stopped

Required: Yes

**CurrentSamplingPercentage**

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: Yes

**DestinationS3Uri**

Type: String

Length Constraints: Maximum length of 512.

Pattern: ^(https|s3)://([/?]+)?(.*?$)

Required: Yes

**EnableCapture**

Type: Boolean

Required: Yes

**KmsKeyId**

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .*

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
DataProcessing

Service: Amazon SageMaker Service

The data structure used to specify the data to be used for inference in a batch transform job and to associate the data that is relevant to the prediction results in the output. The input filter provided allows you to exclude input data that is not needed for inference in a batch transform job. The output filter provided allows you to include input data relevant to interpreting the predictions in the output from the job. For more information, see Associate Prediction Results with their Corresponding Input Records.

Contents

InputFilter

A JSONPath expression used to select a portion of the input data to pass to the algorithm. Use the InputFilter parameter to exclude fields, such as an ID column, from the input. If you want Amazon SageMaker to pass the entire input dataset to the algorithm, accept the default value $.

Examples: "$", "$[1:]", ".features"

Type: String

Length Constraints: Minimum length of 0. Maximum length of 63.

JoinSource

Specifies the source of the data to join with the transformed data. The valid values are None and Input. The default value is None, which specifies not to join the input with the transformed data. If you want the batch transform job to join the original input data with the transformed data, set JoinSource to Input.

For JSON or JSONLines objects, such as a JSON array, Amazon SageMaker adds the transformed data to the input JSON object in an attribute called SageMakerOutput. The joined result for JSON must be a key-value pair object. If the input is not a key-value pair object, Amazon SageMaker creates a new JSON file. In the new JSON file, and the input data is stored under the SageMakerInput key and the results are stored in SageMakerOutput.

For CSV files, Amazon SageMaker combines the transformed data with the input data at the end of the input data and stores it in the output file. The joined data has the joined input data followed by the transformed data and the output is a CSV file.

Type: String

Valid Values: Input | None

Required: No

OutputFilter

A JSONPath expression used to select a portion of the joined dataset to save in the output file for a batch transform job. If you want Amazon SageMaker to store the entire input dataset in the output file, leave the default value, $.$ If you specify indexes that aren't within the dimension size of the joined dataset, you get an error.

Examples: "$", "$[0,5:]", "$[\"id\", 'SageMakerOutput']"

Type: String

Length Constraints: Minimum length of 0. Maximum length of 63.
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
DataStream
Service: Amazon SageMaker Service

Describes the location of the channel data.

Contents

**FileSystemDataSource**

The file system that is associated with a channel.

Type: FileSystemDataSource (p. 524) object

Required: No

**S3DataSource**

The S3 location of the data source that is associated with a channel.

Type: S3DataSource (p. 674) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
DebugHookConfig

Service: Amazon SageMaker Service

Configuration information for the debug hook parameters, collection configuration, and storage paths.

Contents

CollectionConfigurations

Configuration information for tensor collections.

Type: Array of CollectionConfiguration (p. 489) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

HookParameters

Configuration information for the debug hook parameters.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Key Pattern: .*

Value Length Constraints: Maximum length of 256.

Value Pattern: .*

Required: No

LocalPath

Path to local storage location for tensors. Defaults to /opt/ml/output/tensors/.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: .*

Required: No

S3OutputPath

Path to Amazon S3 storage location for tensors.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^/]+)/(.*$)

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for Ruby V3
DebugRuleConfiguration
Service: Amazon SageMaker Service

Configuration information for debugging rules.

Contents

InstanceType

The instance type to deploy for a training job.

Type: String

Valid Values: ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge |
| ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge |
| ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge |
| ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge |
| ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge |
| ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.m5.large |
| ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge |
| ml.m5.24xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge |
| ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge |

Required: No

LocalPath

Path to local storage location for output of rules. Defaults to /opt/ml/processing/output/rule/.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: .*

Required: No

RuleConfigurationName

The name of the rule configuration. It must be unique relative to other rule configuration names.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .*

Required: Yes

RuleEvaluatorImage

The Amazon Elastic Container (ECR) Image for the managed rule evaluation.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .*

Required: Yes
RuleParameters

Runtime configuration for rule container.
Type: String to string map
Key Length Constraints: Minimum length of 1. Maximum length of 256.
Key Pattern: . *
Value Length Constraints: Maximum length of 256.
Value Pattern: . *
Required: No

S3OutputPath

Path to Amazon S3 storage location for rules.
Type: String
Length Constraints: Maximum length of 1024.
Pattern: ^(https|s3)://([^/]+)/?([^/]+)$
Required: No

VolumeSizeInGB

The size, in GB, of the ML storage volume attached to the processing instance.
Type: Integer
Valid Range: Minimum value of 0.
Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
DebugRuleEvaluationStatus

Service: Amazon SageMaker Service

Information about the status of the rule evaluation.

Contents

**LastModifiedTime**

Timestamp when the rule evaluation status was last modified.

Type: Timestamp

Required: No

**RuleConfigurationName**

The name of the rule configuration

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .*

Required: No

**RuleEvaluationJobArn**

The Amazon Resource Name (ARN) of the rule evaluation job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:processing-job/.*`

Required: No

**RuleEvaluationStatus**

Status of the rule evaluation.

Type: String

Valid Values: InProgress | NoIssuesFound | IssuesFound | Error | Stopping | Stopped

Required: No

**StatusDetails**

Details from the rule evaluation.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .*

Required: No
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
DeployedImage

Service: Amazon SageMaker Service

Gets the Amazon EC2 Container Registry path of the docker image of the model that is hosted in this ProductionVariant (p. 657).

If you used the registry/repository[:tag] form to specify the image path of the primary container when you created the model hosted in this ProductionVariant, the path resolves to a path of the form registry/repository[@digest]. A digest is a hash value that identifies a specific version of an image. For information about Amazon ECR paths, see Pulling an Image in the Amazon ECR User Guide.

Contents

ResolutionTime

The date and time when the image path for the model resolved to the ResolvedImage

Type: Timestamp

Required: No

ResolvedImage

The specific digest path of the image hosted in this ProductionVariant.

Type: String

Length Constraints: Maximum length of 255.

Pattern: \S+

Required: No

SpecifiedImage

The image path you specified when you created the model.

Type: String

Length Constraints: Maximum length of 255.

Pattern: \S+

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**DesiredWeightAndCapacity**

Service: Amazon SageMaker Service

Specifies weight and capacity values for a production variant.

**Contents**

**DesiredInstanceCount**

The variant's capacity.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

**DesiredWeight**

The variant's weight.

Type: Float

Valid Range: Minimum value of 0.

Required: No

**VariantName**

The name of the variant to update.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*$`

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
DomainDetails
Service: Amazon SageMaker Service

The domain's details.

Contents

**CreationTime**

The creation time.

Type: Timestamp

Required: No

**DomainArn**

The domain's Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: Arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:domain/.*

Required: No

**DomainId**

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: No

**DomainName**

The domain name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9][-]*[a-zA-Z0-9]\*

Required: No

**LastModifiedTime**

The last modified time.

Type: Timestamp

Required: No

**Status**

The status.

Type: String

Valid Values: Deleting | Failed | InService | Pending
**DomainDetails**

Required: No

**Url**

The domain's URL.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
EndpointConfigSummary
Service: Amazon SageMaker Service

Provides summary information for an endpoint configuration.

Contents

CreationTime
A timestamp that shows when the endpoint configuration was created.
Type: Timestamp
Required: Yes

EndpointConfigArn
The Amazon Resource Name (ARN) of the endpoint configuration.
Type: String
Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:endpoint-config/.*
Required: Yes

EndpointConfigName
The name of the endpoint configuration.
Type: String
Length Constraints: Maximum length of 63.
Pattern: ^[a-zA-Z0-9\-]*[^a-zA-Z0-9\-]*
Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
EndpointInput
Service: Amazon SageMaker Service
Input object for the endpoint

Contents

EndpointName
An endpoint in customer's account which has enabled DataCaptureConfig enabled.
Type: String
Length Constraints: Maximum length of 63.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])* 
Required: Yes

LocalPath
Path to the filesystem where the endpoint data is available to the container.
Type: String
Length Constraints: Maximum length of 256.
Pattern: .* 
Required: Yes

S3DataDistributionType
Whether input data distributed in Amazon S3 is fully replicated or sharded by an S3 key. Defaults to FullyReplicated
Type: String
Valid Values: FullyReplicated | ShardedByS3Key
Required: No

S3InputMode
Whether the Pipe or File is used as the input mode for transfering data for the monitoring job. Pipe mode is recommended for large datasets. File mode is useful for small files that fit in memory. Defaults to File.
Type: String
Valid Values: Pipe | File
Required: No

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:
- AWS SDK for C++
- AWS SDK for Go
• AWS SDK for Java
• AWS SDK for Ruby V3
EndpointSummary

Service: Amazon SageMaker Service

Provides summary information for an endpoint.

Contents

CreationTime

A timestamp that shows when the endpoint was created.

Type: Timestamp

Required: Yes

EndpointArn

The Amazon Resource Name (ARN) of the endpoint.

Type: String


Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:0-9{12}:endpoint/.*

Required: Yes

EndpointName

The name of the endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9\-]*[a-zA-Z0-9]*

Required: Yes

EndpointStatus

The status of the endpoint.

- **OutOfService**: Endpoint is not available to take incoming requests.
- **Creating**: CreateEndpoint (p. 34) is executing.
- **Updating**: UpdateEndpoint (p. 400) or UpdateEndpointWeightsAndCapacities (p. 403) is executing.
- **SystemUpdating**: Endpoint is undergoing maintenance and cannot be updated or deleted or re-scaled until it has completed. This maintenance operation does not change any customer-specified values such as VPC config, KMS encryption, model, instance type, or instance count.
- **RollingBack**: Endpoint fails to scale up or down or change its variant weight and is in the process of rolling back to its previous configuration. Once the rollback completes, endpoint returns to an InService status. This transitional status only applies to an endpoint that has autoscaling enabled and is undergoing variant weight or capacity changes as part of an UpdateEndpointWeightsAndCapacities (p. 403) call or when the UpdateEndpointWeightsAndCapacities (p. 403) operation is called explicitly.
- **InService**: Endpoint is available to process incoming requests.
- **Deleting**: DeleteEndpoint (p. 122) is executing.
- **Failed**: Endpoint could not be created, updated, or re-scaled. Use DescribeEndpoint:FailureReason (p. 176) for information about the failure. DeleteEndpoint (p. 122) is the only operation that can be performed on a failed endpoint.
To get a list of endpoints with a specified status, use the `ListEndpoints:StatusEquals` filter.

Type: String

Valid Values: OutOfService | Creating | Updating | SystemUpdating | RollingBack | InService | Deleting | Failed

Required: Yes

**LastModifiedTime**

A timestamp that shows when the endpoint was last modified.

Type: Timestamp

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Experiment
Service: Amazon SageMaker Service

A summary of the properties of an experiment as returned by the Search (p. 363) API.

Contents

CreatedBy
Information about the user who created or modified an experiment, trial, or trial component.
Type: UserContext (p. 746) object
Required: No

CreationTime
When the experiment was created.
Type: Timestamp
Required: No

Description
The description of the experiment.
Type: String
Length Constraints: Maximum length of 3072.
Pattern: . *
Required: No

DisplayName
The name of the experiment as displayed. If DisplayName isn't specified, ExperimentName is displayed.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9\-\*][a-zA-Z0-9\-]*$ *
Required: No

ExperimentArn
The Amazon Resource Name (ARN) of the experiment.
Type: String
Length Constraints: Maximum length of 256.
Pattern: ^arn:aws[a-zA-Z\-]*:sagemaker:[a-zA-Z0-9\-]*:[0-9]{12}:experiment/.*
Required: No

ExperimentName
The name of the experiment.
Experiment

Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^\[a-zA-Z0-9\](-*[a-zA-Z0-9]*)$

Required: No

LastModifiedBy

Information about the user who created or modified an experiment, trial, or trial component.

Type: UserContext (p. 746) object

Required: No

LastModifiedTime

When the experiment was last modified.

Type: Timestamp

Required: No

Source

The source of the experiment.

Type: ExperimentSource (p. 521) object

Required: No

Tags

The list of tags that are associated with the experiment. You can use Search (p. 363) API to search on the tags.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ExperimentConfig
Service: Amazon SageMaker Service
Configuration for the experiment.

Contents

ExperimentName
The name of the experiment.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*
Required: No

TrialComponentDisplayName
Display name for the trial component.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*
Required: No

TrialName
The name of the trial.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9]*)*
Required: No

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ExperimentSource
Service: Amazon SageMaker Service
The source of the experiment.

Contents

SourceArn
The Amazon Resource Name (ARN) of the source.
Type: String
Length Constraints: Maximum length of 256.
Pattern: arn:aws*[a-zA-Z0-9-]*:sagemaker:*:[0-9]{12}:.*
Required: Yes

SourceType
The source type.
Type: String
Length Constraints: Maximum length of 128.
Required: No

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ExperimentSummary
Service: Amazon SageMaker Service

A summary of the properties of an experiment. To get the complete set of properties, call the DescribeExperiment (p. 181) API and provide the ExperimentName.

Contents

CreationTime
When the experiment was created.
Type: Timestamp
Required: No

DisplayName
The name of the experiment as displayed. If DisplayName isn't specified, ExperimentName is displayed.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9-]*[a-zA-Z0-9-]*$  
Required: No

ExperimentArn
The Amazon Resource Name (ARN) of the experiment.
Type: String
Length Constraints: Maximum length of 256.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment/.*  
Required: No

ExperimentName
The name of the experiment.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9-]*[a-zA-Z0-9-]*$  
Required: No

ExperimentSource
The source of the experiment.
Type: ExperimentSource (p. 521) object
Required: No

LastModifiedTime
When the experiment was last modified.
Type: Timestamp

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
FileSystemDataSource
Service: Amazon SageMaker Service

Specifies a file system data source for a channel.

Contents

DirectoryPath

The full path to the directory to associate with the channel.
Type: String
Length Constraints: Maximum length of 4096.
Pattern: .*
Required: Yes

FileSystemAccessMode

The access mode of the mount of the directory associated with the channel. A directory can be mounted either in ro (read-only) or rw (read-write) mode.
Type: String
Valid Values: rw | ro
Required: Yes

FileSystemId

The file system id.
Type: String
Length Constraints: Minimum length of 11.
Pattern: .*
Required: Yes

FileSystemType

The file system type.
Type: String
Valid Values: EFS | FSxLustre
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**Filter**

**Service: Amazon SageMaker Service**

A conditional statement for a search expression that includes a resource property, a Boolean operator, and a value.

If you don’t specify an **Operator** and a **Value**, the filter searches for only the specified property. For example, defining a **Filter** for the **FailureReason** for the **TrainingJob** Resource searches for training job objects that have a value in the **FailureReason** field.

If you specify a **Value**, but not an **Operator**, Amazon SageMaker uses the equals operator as the default.

In search, there are several property types:

**Metrics**

To define a metric filter, enter a value using the form "Metrics.<name>" , where <name> is a metric name. For example, the following filter searches for training jobs with an "accuracy" metric greater than "0.9":

```
{
  "Name": "Metrics.accuracy",
  "Operator": "GREATER_THAN",
  "Value": "0.9"
}
```

**HyperParameters**

To define a hyperparameter filter, enter a value with the form "HyperParameters.<name>". Decimal hyperparameter values are treated as a decimal in a comparison if the specified **Value** is also a decimal value. If the specified **Value** is an integer, the decimal hyperparameter values are treated as integers. For example, the following filter is satisfied by training jobs with a "learning_rate" hyperparameter that is less than "0.5":

```
{
  "Name": "HyperParameters.learning_rate",
  "Operator": "LESS_THAN",
  "Value": "0.5"
}
```

**Tags**

To define a tag filter, enter a value with the form "Tags.<key>".

**Contents**

**Name**

A property name. For example, **TrainingJobName**. For the list of valid property names returned in a search result for each supported resource, see **TrainingJob (p. 694)** properties. You must specify a valid property name for the resource.
Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: Yes

**Operator**

A Boolean binary operator that is used to evaluate the filter. The operator field contains one of the following values:

- **Equals**
  
  The specified resource in Name equals the specified Value.

- **NotEquals**
  
  The specified resource in Name does not equal the specified Value.

- **GreaterThan**
  
  The specified resource in Name is greater than the specified Value. Not supported for text-based properties.

- **GreaterThanOrEqualTo**
  
  The specified resource in Name is greater than or equal to the specified Value. Not supported for text-based properties.

- **LessThan**
  
  The specified resource in Name is less than the specified Value. Not supported for text-based properties.

- **LessThanOrEqualTo**
  
  The specified resource in Name is less than or equal to the specified Value. Not supported for text-based properties.

- **Contains**
  
  Only supported for text-based properties. The word-list of the property contains the specified Value. A SearchExpression can include only one Contains operator.

If you have specified a filter Value, the default is Equals.

Type: String

Valid Values: Equals | NotEquals | GreaterThan | GreaterThanOrEqualTo | LessThan | LessThanOrEqualTo | Contains | Exists | NotExists | In

Required: No

**Value**

A value used with Resource and Operator to determine if objects satisfy the filter's condition. For numerical properties, Value must be an integer or floating-point decimal. For timestamp properties, Value must be an ISO 8601 date-time string of the following format: `YYYY-mm-dd'T'HH:MM:SS`.

Type: String


Pattern: .+

Required: No
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
FinalAutoMLJobObjectiveMetric

Service: Amazon SageMaker Service

The candidate result from a job.

Contents

MetricName

The name of the metric.

Type: String

Valid Values: Accuracy | MSE | F1 | F1macro

Required: Yes

Type

The metric type used.

Type: String

Valid Values: Maximize | Minimize

Required: No

Value

The value of the metric.

Type: Float

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
FinalHyperParameterTuningJobObjectiveMetric

Service: Amazon SageMaker Service

Shows the final value for the objective metric for a training job that was launched by a hyperparameter tuning job. You define the objective metric in the HyperParameterTuningJobObjective parameter of `HyperParameterTuningJobConfig` (p. 562).

Contents

**MetricName**

The name of the objective metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: Yes

**Type**

Whether to minimize or maximize the objective metric. Valid values are Minimize and Maximize.

Type: String

Valid Values: Maximize | Minimize

Required: No

**Value**

The value of the objective metric.

Type: Float

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
FlowDefinitionOutputConfig
Service: Amazon SageMaker Service

Contains information about where human output will be stored.

Contents

KmsKeyId
The Amazon Key Management Service (KMS) key ID for server-side encryption.
Type: String
Length Constraints: Maximum length of 2048.
Pattern: . *
Required: No

S3OutputPath
The Amazon S3 path where the object containing human output will be made available.
Type: String
Length Constraints: Maximum length of 1024.
Pattern: ^(https|s3)://([^/]+)/*([^/]+)?([^/]+)?$ 
Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
FlowDefinitionSummary
Service: Amazon SageMaker Service

Contains summary information about the flow definition.

Contents

CreationTime
The timestamp when SageMaker created the flow definition.
Type: Timestamp
Required: Yes

FailureReason
The reason why the flow definition creation failed. A failure reason is returned only when the flow definition status is Failed.
Type: String
Length Constraints: Maximum length of 1024.
Required: No

FlowDefinitionArn
The Amazon Resource Name (ARN) of the flow definition.
Type: String
Length Constraints: Maximum length of 1024.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:flow-definition/.*
Required: Yes

FlowDefinitionName
The name of the flow definition.
Type: String
Pattern: ^[a-z0-9\-]*\[a-z0-9\-]*
Required: Yes

FlowDefinitionStatus
The status of the flow definition. Valid values:
Type: String
Valid Values: Initializing | Active | Failed | Deleting
Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for Ruby V3
GitConfig

Service: Amazon SageMaker Service

Specifies configuration details for a Git repository in your AWS account.

Contents

Branch

The default branch for the Git repository.

Type: String


Pattern: [^ -^:?*\[]+

Required: No

RepositoryUrl

The URL where the Git repository is located.

Type: String

Pattern: ^https://([^/]+)/(.*)$

Required: Yes

SecretArn

The Amazon Resource Name (ARN) of the AWS Secrets Manager secret that contains the credentials used to access the git repository. The secret must have a staging label of AWSCURRENT and must be in the following format:

{"username": UserName, "password": Password}

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: arn:aws[a-z\-]*:secretsmanager:[a-z0-9\-]*:[0-9]{12}:secret:.*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
GitConfigForUpdate

Service: Amazon SageMaker Service

Specifies configuration details for a Git repository when the repository is updated.

Contents

SecretArn

The Amazon Resource Name (ARN) of the AWS Secrets Manager secret that contains the credentials used to access the git repository. The secret must have a staging label of AWSCURRENT and must be in the following format:

{"username": UserName, "password": Password}

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: arn:aws[a-z\-]*:secretsmanager:[a-z0-9\-]*:[0-9]{12}:secret:.*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
HumanLoopActivationConditionsConfig

Service: Amazon SageMaker Service

Defines under what conditions SageMaker creates a human loop. Used within CreateFlowDefinition (p. 44). See HumanLoopActivationConditionsConfig (p. 536) for the required format of activation conditions.

Contents

HumanLoopActivationConditions

JSON expressing use-case specific conditions declaratively. If any condition is matched, atomic tasks are created against the configured work team. The set of conditions is different for Rekognition and Textract. For more information about how to structure the JSON, see JSON Schema for Human Loop Activation Conditions in Amazon Augmented AI in the Amazon SageMaker Developer Guide.

Type: String

Length Constraints: Maximum length of 10240.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**HumanLoopActivationConfig**

Service: Amazon SageMaker Service

Provides information about how and under what conditions SageMaker creates a human loop. If `HumanLoopActivationConfig` is not given, then all requests go to humans.

**Contents**

**HumanLoopActivationConditionsConfig**

Container structure for defining under what conditions SageMaker creates a human loop.

Type: `HumanLoopActivationConditionsConfig (p. 536)` object

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
HumanLoopConfig

Service: Amazon SageMaker Service

Describes the work to be performed by human workers.

Contents

**HumanTaskUiArn**

The Amazon Resource Name (ARN) of the human task user interface.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:human-task-ui/.*`

Required: Yes

**PublicWorkforceTaskPrice**

Defines the amount of money paid to an Amazon Mechanical Turk worker for each task performed.

Use one of the following prices for bounding box tasks. Prices are in US dollars and should be based on the complexity of the task; the longer it takes in your initial testing, the more you should offer.

- 0.036
- 0.048
- 0.060
- 0.072
- 0.120
- 0.240
- 0.360
- 0.480
- 0.600
- 0.720
- 0.840
- 0.960
- 1.080
- 1.200

Use one of the following prices for image classification, text classification, and custom tasks. Prices are in US dollars.

- 0.012
- 0.024
- 0.036
- 0.048
- 0.060
- 0.072
- 0.120
- 0.240
- 0.360
- 0.480
Use one of the following prices for semantic segmentation tasks. Prices are in US dollars.

- 0.600
- 0.720
- 0.840
- 0.960
- 1.080
- 1.200

Use one of the following prices for Textract AnalyzeDocument Important Form Key Amazon Augmented AI review tasks. Prices are in US dollars.

- 2.400
- 2.280
- 2.160
- 2.040
- 1.920
- 1.800
- 1.680
- 1.560
- 1.440
- 1.320
- 1.200
- 1.080
- 0.960
- 0.840
- 0.720
- 0.600
- 0.480
- 0.360
- 0.240
- 0.120
- 0.072
- 0.060
- 0.048
- 0.036
- 0.024
- 0.012

Use one of the following prices for Rekognition DetectModerationLabels Amazon Augmented AI review tasks. Prices are in US dollars.

- 1.200
- 1.080
- 0.960
Use one of the following prices for Amazon Augmented AI custom human review tasks. Prices are in US dollars.

- 1.200
- 1.080
- 0.960
- 0.840
- 0.720
- 0.600
- 0.480
- 0.360
- 0.240
- 0.120
- 0.072
- 0.060
- 0.048
- 0.036
- 0.024
- 0.012

Type: `PublicWorkforceTaskPrice (p. 663)` object

Required: No

**TaskAvailabilityLifetimeInSeconds**

The length of time that a task remains available for labeling by human workers.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 864000.

Required: No

**TaskCount**

The number of distinct workers who will perform the same task on each object. For example, if `TaskCount` is set to 3 for an image classification labeling job, three workers will classify each input image. Increasing `TaskCount` can improve label accuracy.
HumanLoopConfig

Type: Integer
Required: Yes

TaskDescription
A description for the human worker task.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 255.
Pattern: .+
Required: Yes

TaskKeywords
Keywords used to describe the task so that workers can discover the task.
Type: Array of strings
Array Members: Minimum number of 1 item. Maximum number of 5 items.
Pattern: ^[A-Za-z0-9]+( [A-Za-z0-9]+)*$ 
Required: No

TaskTimeLimitInSeconds
The amount of time that a worker has to complete a task.
Type: Integer
Required: No

TaskTitle
A title for the human worker task.
Type: String
Pattern: ^[\t\n\r -\u0000-\ufffd]*$ 
Required: Yes

WorkteamArn
Amazon Resource Name (ARN) of a team of workers.
Type: String
Length Constraints: Maximum length of 256.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:workteam/.* 
Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
HumanLoopRequestSource

Service: Amazon SageMaker Service

Container for configuring the source of human task requests.

Contents

AwsManagedHumanLoopRequestSource

Specifies whether Amazon Rekognition or Amazon Textract are used as the integration source. The default field settings and JSON parsing rules are different based on the integration source. Valid values:

Type: String

Valid Values: AWS/Rekognition/DetectModerationLabels/Image/V3 | AWS/Textract/AnalyzeDocument/Forms/V1

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
HumanTaskConfig

Service: Amazon SageMaker Service

Information required for human workers to complete a labeling task.

Contents

AnnotationConsolidationConfig

Configures how labels are consolidated across human workers.

Type: AnnotationConsolidationConfig (p. 452) object

Required: Yes

MaxConcurrentTaskCount

Defines the maximum number of data objects that can be labeled by human workers at the same time. Also referred to as batch size. Each object may have more than one worker at one time. The default value is 1000 objects.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

NumberOfHumanWorkersPerDataObject

The number of human workers that will label an object.

Type: Integer


Required: Yes

PreHumanTaskLambdaArn

The Amazon Resource Name (ARN) of a Lambda function that is run before a data object is sent to a human worker. Use this function to provide input to a custom labeling job.

For the built-in bounding box, image classification, semantic segmentation, and text classification task types, Amazon SageMaker Ground Truth provides the following Lambda functions:

**US East (Northern Virginia) (us-east-1):**
- `arn:aws:lambda:us-east-1:432418664414:function:PRE-BoundingBox`
- `arn:aws:lambda:us-east-1:432418664414:function:PRE-TextMultiClass`
- `arn:aws:lambda:us-east-1:432418664414:function:PRE-VerificationBoundingBox`
<table>
<thead>
<tr>
<th>Region</th>
<th>Lambda Function ARNs</th>
</tr>
</thead>
</table>
• arn:aws:lambda:ca-central-1:918755190332:function:PRE-VerificationBoundingBox
• arn:aws:lambda:ca-central-1:918755190332:function:PRE-AdjustmentBoundingBox

EU (Ireland) (eu-west-1):
• arn:aws:lambda:eu-west-1:568282634449:function:PRE-BoundingBox
• arn:aws:lambda:eu-west-1:568282634449:function:PRE-ImageMultiClass
• arn:aws:lambda:eu-west-1:568282634449:function:PRE-ImageMultiClassMultiLabel
• arn:aws:lambda:eu-west-1:568282634449:function:PRE-SemanticSegmentation
• arn:aws:lambda:eu-west-1:568282634449:function:PRE-TextMultiClass
• arn:aws:lambda:eu-west-1:568282634449:function:PRE-TextMultiClassMultiLabel
• arn:aws:lambda:eu-west-1:568282634449:function:PRE-NamedEntityRecognition
• arn:aws:lambda:eu-west-1:568282634449:function:PRE-VerificationBoundingBox
• arn:aws:lambda:eu-west-1:568282634449:function:PRE-VerificationSemanticSegmentation
• arn:aws:lambda:eu-west-1:568282634449:function:PRE-AdjustmentBoundingBox
• arn:aws:lambda:eu-west-1:568282634449:function:PRE-AdjustmentSemanticSegmentation

EU (London) (eu-west-2):
• arn:aws:lambda:eu-west-2:487402164563:function:PRE-BoundingBox
• arn:aws:lambda:eu-west-2:487402164563:function:PRE-ImageMultiClass
• arn:aws:lambda:eu-west-2:487402164563:function:PRE-ImageMultiClassMultiLabel
• arn:aws:lambda:eu-west-2:487402164563:function:PRE-TextMultiClass
• arn:aws:lambda:eu-west-2:487402164563:function:PRE-TextMultiClassMultiLabel
• arn:aws:lambda:eu-west-2:487402164563:function:PRE-VerificationBoundingBox
• arn:aws:lambda:eu-west-2:487402164563:function:PRE-AdjustmentBoundingBox

EU Frankfurt (eu-central-1):
• arn:aws:lambda:eu-central-1:203001061592:function:PRE-BoundingBox
• arn:aws:lambda:eu-central-1:203001061592:function:PRE-ImageMultiClass
• arn:aws:lambda:eu-central-1:203001061592:function:PRE-ImageMultiClassMultiLabel
• arn:aws:lambda:eu-central-1:203001061592:function:PRE-SemanticSegmentation
HumanTaskConfig

- arn:aws:lambda:eu-central-1:203001061592:function:PRE-VerificationBoundingBox
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-AdjustmentBoundingBox

Asia Pacific (Tokyo) (ap-northeast-1):
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-BoundingBox
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-VerificationBoundingBox
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-AdjustmentBoundingBox

Asia Pacific (Seoul) (ap-northeast-2):
• arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-AdjustmentBoundingBox

Asia Pacific (Mumbai) (ap-south-1):
• arn:aws:lambda:ap-south-1:565803892007:function:PRE-BoundingBox
• arn:aws:lambda:ap-south-1:565803892007:function:PRE-ImageMultiClass
• arn:aws:lambda:ap-south-1:565803892007:function:PRE-ImageMultiClassMultiLabel
• arn:aws:lambda:ap-south-1:565803892007:function:PRE-SemanticSegmentation
• arn:aws:lambda:ap-south-1:565803892007:function:PRE-TextMultiClass
• arn:aws:lambda:ap-south-1:565803892007:function:PRE-TextMultiClassMultiLabel
• arn:aws:lambda:ap-south-1:565803892007:function:PRE-VerificationBoundingBox
• arn:aws:lambda:ap-south-1:565803892007:function:PRE-VerificationSemanticSegmentation
• arn:aws:lambda:ap-south-1:565803892007:function:PRE-AdjustmentBoundingBox
• arn:aws:lambda:ap-south-1:565803892007:function:PRE-AdjustmentSemanticSegmentation

Asia Pacific (Singapore) (ap-southeast-1):
• arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-BoundingBox
• arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-ImageMultiClass
• arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-ImageMultiClassMultiLabel
• arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-SemanticSegmentation
• arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-TextMultiClass
• arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-TextMultiClassMultiLabel
• arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-VerificationBoundingBox
• arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-VerificationSemanticSegmentation
• arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-AdjustmentBoundingBox

Asia Pacific (Sydney) (ap-southeast-2):
• arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-BoundingBox
• arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-VerificationBoundingBox
• arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-AdjustmentBoundingBox

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:lambda:[a-z]{2}-[a-z]+\-\d{1}:\d{12}:function:[a-zA-Z0-9-\_]\+\((?:\$LATEST|[a-zA-Z0-9-\_]\+))`?

Required: Yes

PublicWorkforceTaskPrice

The price that you pay for each task performed by an Amazon Mechanical Turk worker.

Type: PublicWorkforceTaskPrice (p. 663) object

Required: No

TaskAvailabilityLifetimeInSeconds

The length of time that a task remains available for labeling by human workers. **If you choose the Amazon Mechanical Turk workforce, the maximum is 12 hours (43200).** The default value is 864000 seconds (10 days). For private and vendor workforces, the maximum is as listed.

Type: Integer

Valid Range: Minimum value of 60. Maximum value of 864000.

Required: No

TaskDescription

A description of the task for your human workers.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: Yes

TaskKeywords

Keywords used to describe the task so that workers on Amazon Mechanical Turk can discover the task.

Type: Array of strings
Array Members: Minimum number of 1 item. Maximum number of 5 items.
Pattern: ^[A-Za-z0-9]+( \[A-Za-z0-9\]+)*$
Required: No

**TaskTimeLimitInSeconds**

The amount of time that a worker has to complete a task.
Type: Integer
Required: Yes

**TaskTitle**

A title for the task for your human workers.
Type: String
Pattern: ^[\t\n\r -\u0000-\uFFFF]*$
Required: Yes

**UiConfig**

Information about the user interface that workers use to complete the labeling task.
Type: **UiConfig** (p. 742) object
Required: Yes

**WorkteamArn**

The Amazon Resource Name (ARN) of the work team assigned to complete the tasks.
Type: String
Length Constraints: Maximum length of 256.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:workteam/.*
Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
HumanTaskUiSummary

Service: Amazon SageMaker Service

Container for human task user interface information.

Contents

CreationTime

A timestamp when SageMaker created the human task user interface.

Type: Timestamp

Required: Yes

HumanTaskUiArn

The Amazon Resource Name (ARN) of the human task user interface.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: \[arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:human-task-ui/.*

Required: Yes

HumanTaskUiName

The name of the human task user interface.

Type: String


Pattern: \^[a-z0-9](\-[a-z0-9]){0,}

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
HyperParameterAlgorithmSpecification

Service: Amazon SageMaker Service

Specifies which training algorithm to use for training jobs that a hyperparameter tuning job launches and the metrics to monitor.

Contents

AlgorithmName

The name of the resource algorithm to use for the hyperparameter tuning job. If you specify a value for this parameter, do not specify a value for TrainingImage.

Type: String


Pattern: (arn:aws[a-zA-Z-]*)*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:[a-zA-Z]*[/]?([a-zA-Z0-9-]*{0,62})(?<!-)$

Required: No

MetricDefinitions

An array of MetricDefinition (p. 598) objects that specify the metrics that the algorithm emits.

Type: Array of MetricDefinition (p. 598) objects

Array Members: Minimum number of 0 items. Maximum number of 40 items.

Required: No

TrainingImage

The registry path of the Docker image that contains the training algorithm. For information about Docker registry paths for built-in algorithms, see Algorithms Provided by Amazon SageMaker: Common Parameters. Amazon SageMaker supports both registry/repository[:tag] and registry/repository[@digest] image path formats. For more information, see Using Your Own Algorithms with Amazon SageMaker.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .*

Required: No

TrainingInputMode

The input mode that the algorithm supports: File or Pipe. In File input mode, Amazon SageMaker downloads the training data from Amazon S3 to the storage volume that is attached to the training instance and mounts the directory to the Docker volume for the training container. In Pipe input mode, Amazon SageMaker streams data directly from Amazon S3 to the container.

If you specify File mode, make sure that you provision the storage volume that is attached to the training instance with enough capacity to accommodate the training data downloaded from Amazon S3, the model artifacts, and intermediate information.

For more information about input modes, see Algorithms.

Type: String
Valid Values: Pipe | File

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
HyperParameterSpecification

Service: Amazon SageMaker Service

Defines a hyperparameter to be used by an algorithm.

Contents

DefaultValue

The default value for this hyperparameter. If a default value is specified, a hyperparameter cannot be required.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .*

Required: No

Description

A brief description of the hyperparameter.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: \[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]\]*

Required: No

IsRequired

Indicates whether this hyperparameter is required.

Type: Boolean

Required: No

IsTunable

Indicates whether this hyperparameter is tunable in a hyperparameter tuning job.

Type: Boolean

Required: No

Name

The name of this hyperparameter. The name must be unique.

Type: String

Length Constraints: Maximum length of 256.

Pattern: \[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]\]*

Required: Yes

Range

The allowed range for this hyperparameter.
Type: `ParameterRange` (p. 641) object

Required: No

**Type**

The type of this hyperparameter. The valid types are `Integer`, `Continuous`, `Categorical`, and `FreeText`.

Type: `String`

Valid Values: `Integer` | `Continuous` | `Categorical` | `FreeText`

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
HyperParameterTrainingJobDefinition

Service: Amazon SageMaker Service

Defines the training jobs launched by a hyperparameter tuning job.

Contents

AlgorithmSpecification

The HyperParameterAlgorithmSpecification (p. 552) object that specifies the resource algorithm to use for the training jobs that the tuning job launches.

Type: HyperParameterAlgorithmSpecification (p. 552) object

Required: Yes

CheckpointConfig

Contains information about the output location for managed spot training checkpoint data.

Type: CheckpointConfig (p. 485) object

Required: No

DefinitionName

The job definition name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])+*

Required: No

EnableInterContainerTrafficEncryption

To encrypt all communications between ML compute instances in distributed training, choose True. Encryption provides greater security for distributed training, but training might take longer. How long it takes depends on the amount of communication between compute instances, especially if you use a deep learning algorithm in distributed training.

Type: Boolean

Required: No

EnableManagedSpotTraining

A Boolean indicating whether managed spot training is enabled (True) or not (False).

Type: Boolean

Required: No

EnableNetworkIsolation

Isolates the training container. No inbound or outbound network calls can be made, except for calls between peers within a training cluster for distributed training. If network isolation is used for training jobs that are configured to use a VPC, Amazon SageMaker downloads and uploads customer data and model artifacts through the specified VPC, but the training container does not have network access.
Type: Boolean
Required: No

**HyperParameterRanges**

Specifies ranges of integer, continuous, and categorical hyperparameters that a hyperparameter tuning job searches. The hyperparameter tuning job launches training jobs with hyperparameter values within these ranges to find the combination of values that result in the training job with the best performance as measured by the objective metric of the hyperparameter tuning job.

**Note**
You can specify a maximum of 20 hyperparameters that a hyperparameter tuning job can search over. Every possible value of a categorical parameter range counts against this limit.

Type: `ParameterRanges (p. 642)` object
Required: No

**InputDataConfig**

An array of `Channel (p. 481)` objects that specify the input for the training jobs that the tuning job launches.

Type: Array of `Channel (p. 481)` objects
Array Members: Minimum number of 1 item. Maximum number of 20 items.
Required: No

**OutputDataConfig**

Specifies the path to the Amazon S3 bucket where you store model artifacts from the training jobs that the tuning job launches.

Type: `OutputDataConfig (p. 639)` object
Required: Yes

**ResourceConfig**

The resources, including the compute instances and storage volumes, to use for the training jobs that the tuning job launches.

Storage volumes store model artifacts and incremental states. Training algorithms might also use storage volumes for scratch space. If you want Amazon SageMaker to use the storage volume to store the training data, choose `File` as the `TrainingInputMode` in the algorithm specification. For distributed training algorithms, specify an instance count greater than 1.

Type: `ResourceConfig (p. 669)` object
Required: Yes

**RoleArn**

The Amazon Resource Name (ARN) of the IAM role associated with the training jobs that the tuning job launches.

Type: String

Pattern: `^arn:aws[a-z\-]*:iam::\d{12}:role/?[a-zA-Z0-9\-+=,.@\-_/]+\+$`
Required: Yes
**StaticHyperParameters**

Specifies the values of hyperparameters that do not change for the tuning job.

Type: String to string map

Key Length Constraints: Maximum length of 256.

Key Pattern: . *

Value Length Constraints: Maximum length of 256.

Value Pattern: . *

Required: No

**StoppingCondition**

Specifies a limit to how long a model hyperparameter training job can run. It also specifies how long you are willing to wait for a managed spot training job to complete. When the job reaches the a limit, Amazon SageMaker ends the training job. Use this API to cap model training costs.

Type: StoppingCondition (p. 687) object

Required: Yes

**TuningObjective**

Defines the objective metric for a hyperparameter tuning job. Hyperparameter tuning uses the value of this metric to evaluate the training jobs it launches, and returns the training job that results in either the highest or lowest value for this metric, depending on the value you specify for the `Type` parameter.

Type: HyperParameterTuningJobObjective (p. 564) object

Required: No

**VpcConfig**

The VpcConfig (p. 752) object that specifies the VPC that you want the training jobs that this hyperparameter tuning job launches to connect to. Control access to and from your training container by configuring the VPC. For more information, see Protect Training Jobs by Using an Amazon Virtual Private Cloud.

Type: VpcConfig (p. 752) object

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
HyperParameterTrainingJobSummary
Service: Amazon SageMaker Service

Specifies summary information about a training job.

Contents

CreationTime
The date and time that the training job was created.
Type: Timestamp
Required: Yes

FailureReason
The reason that the training job failed.
Type: String
Length Constraints: Maximum length of 1024.
Required: No

FinalHyperParameterTuningJobObjectiveMetric
The FinalHyperParameterTuningJobObjectiveMetric (p. 530) object that specifies the value of the objective metric of the tuning job that launched this training job.
Type: FinalHyperParameterTuningJobObjectiveMetric (p. 530) object
Required: No

ObjectiveStatus
The status of the objective metric for the training job:
- Succeeded: The final objective metric for the training job was evaluated by the hyperparameter tuning job and used in the hyperparameter tuning process.
- Pending: The training job is in progress and evaluation of its final objective metric is pending.
- Failed: The final objective metric for the training job was not evaluated, and was not used in the hyperparameter tuning process. This typically occurs when the training job failed or did not emit an objective metric.
Type: String
Valid Values: Succeeded | Pending | Failed
Required: No

TrainingEndTime
Specifies the time when the training job ends on training instances. You are billed for the time interval between the value of TrainingStartTime and this time. For successful jobs and stopped jobs, this is the time after model artifacts are uploaded. For failed jobs, this is the time when Amazon SageMaker detects a job failure.
Type: Timestamp
Required: No
**TrainingJobArn**

The Amazon Resource Name (ARN) of the training job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:training-job/.*`

Required: Yes

**TrainingJobDefinitionName**

The training job definition name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: No

**TrainingJobName**

The name of the training job.

Type: String


Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

**TrainingJobStatus**

The status of the training job.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: Yes

**TrainingStartTime**

The date and time that the training job started.

Type: Timestamp

Required: No

**TunedHyperParameters**

A list of the hyperparameters for which you specified ranges to search.

Type: String to string map

Key Length Constraints: Maximum length of 256.

Key Pattern: .*

Value Length Constraints: Maximum length of 256.
Value Pattern: . *
Required: Yes

**TuningJobName**

The HyperParameter tuning job that launched the training job.

Type: String


Pattern: ^[a-zA-Z0-9]+(-*[a-zA-Z0-9]+)*

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
HyperParameterTuningJobConfig

Service: Amazon SageMaker Service

Configures a hyperparameter tuning job.

Contents

HyperParameterTuningJobObjective

The HyperParameterTuningJobObjective (p. 564) object that specifies the objective metric for this tuning job.

Type: HyperParameterTuningJobObjective (p. 564) object

Required: No

ParameterRanges

The ParameterRanges (p. 642) object that specifies the ranges of hyperparameters that this tuning job searches.

Type: ParameterRanges (p. 642) object

Required: No

ResourceLimits

The ResourceLimits (p. 671) object that specifies the maximum number of training jobs and parallel training jobs for this tuning job.

Type: ResourceLimits (p. 671) object

Required: Yes

Strategy

Specifies how hyperparameter tuning chooses the combinations of hyperparameter values to use for the training job it launches. To use the Bayesian search strategy, set this to Bayesian. To randomly search, set it to Random. For information about search strategies, see How Hyperparameter Tuning Works.

Type: String

Valid Values: Bayesian | Random

Required: Yes

TrainingJobEarlyStoppingType

Specifies whether to use early stopping for training jobs launched by the hyperparameter tuning job. This can be one of the following values (the default value is OFF):

OFF

Training jobs launched by the hyperparameter tuning job do not use early stopping.

AUTO

Amazon SageMaker stops training jobs launched by the hyperparameter tuning job when they are unlikely to perform better than previously completed training jobs. For more information, see Stop Training Jobs Early.

Type: String
Valid Values: Off | Auto

Required: No

**TuningJobCompletionCriteria**

The tuning job's completion criteria.

Type: TuningJobCompletionCriteria (p. 741) object

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
HyperParameterTuningJobObjective

Service: Amazon SageMaker Service

Defines the objective metric for a hyperparameter tuning job. Hyperparameter tuning uses the value of this metric to evaluate the training jobs it launches, and returns the training job that results in either the highest or lowest value for this metric, depending on the value you specify for the Type parameter.

Contents

MetricName

The name of the metric to use for the objective metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: Yes

Type

Whether to minimize or maximize the objective metric.

Type: String

Valid Values: Maximize | Minimize

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
HyperParameterTuningJobSummary

Service: Amazon SageMaker Service

Provides summary information about a hyperparameter tuning job.

Contents

**CreationTime**

The date and time that the tuning job was created.

Type: Timestamp

Required: Yes

**HyperParameterTuningEndTime**

The date and time that the tuning job ended.

Type: Timestamp

Required: No

**HyperParameterTuningJobArn**

The Amazon Resource Name (ARN) of the tuning job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-\*:0-9\{12\}:hyper-parameter-tuning-job/.*`

Required: Yes

**HyperParameterTuningJobName**

The name of the tuning job.

Type: String


Pattern: `^[a-zA-Z0-9\-\]*[a-zA-Z0-9\-]*`

Required: Yes

**HyperParameterTuningJobStatus**

The status of the tuning job.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

Required: Yes

**LastModifiedTime**

The date and time that the tuning job was modified.

Type: Timestamp
Required: No

**ObjectiveStatusCounters**

The [ObjectiveStatusCounters (p. 637)](#) object that specifies the numbers of training jobs, categorized by objective metric status, that this tuning job launched.

Type: [ObjectiveStatusCounters (p. 637)](#) object

Required: Yes

**ResourceLimits**

The [ResourceLimits (p. 671)](#) object that specifies the maximum number of training jobs and parallel training jobs allowed for this tuning job.

Type: [ResourceLimits (p. 671)](#) object

Required: No

**Strategy**

Specifies the search strategy hyperparameter tuning uses to choose which hyperparameters to use for each iteration. Currently, the only valid value is Bayesian.

Type: String

Valid Values: Bayesian | Random

Required: Yes

**TrainingJobStatusCounters**

The [TrainingJobStatusCounters (p. 703)](#) object that specifies the numbers of training jobs, categorized by status, that this tuning job launched.

Type: [TrainingJobStatusCounters (p. 703)](#) object

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
HyperParameterTuningJobWarmStartConfig

Service: Amazon SageMaker Service

Specifies the configuration for a hyperparameter tuning job that uses one or more previous hyperparameter tuning jobs as a starting point. The results of previous tuning jobs are used to inform which combinations of hyperparameters to search over in the new tuning job.

All training jobs launched by the new hyperparameter tuning job are evaluated by using the objective metric, and the training job that performs the best is compared to the best training jobs from the parent tuning jobs. From these, the training job that performs the best as measured by the objective metric is returned as the overall best training job.

**Note**
All training jobs launched by parent hyperparameter tuning jobs and the new hyperparameter tuning jobs count against the limit of training jobs for the tuning job.

### Contents

**ParentHyperParameterTuningJobs**

An array of hyperparameter tuning jobs that are used as the starting point for the new hyperparameter tuning job. For more information about warm starting a hyperparameter tuning job, see [Using a Previous Hyperparameter Tuning Job as a Starting Point](#).

Hyperparameter tuning jobs created before October 1, 2018 cannot be used as parent jobs for warm start tuning jobs.

Type: Array of ParentHyperParameterTuningJob (p. 644) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: Yes

**WarmStartType**

Specifies one of the following:

- **IDENTICAL_DATA_AND_ALGORITHM**

  The new hyperparameter tuning job uses the same input data and training image as the parent tuning jobs. You can change the hyperparameter ranges to search and the maximum number of training jobs that the hyperparameter tuning job launches. You cannot use a new version of the training algorithm, unless the changes in the new version do not affect the algorithm itself. For example, changes that improve logging or adding support for a different data format are allowed. You can also change hyperparameters from tunable to static, and from static to tunable, but the total number of static plus tunable hyperparameters must remain the same as it is in all parent jobs. The objective metric for the new tuning job must be the same as for all parent jobs.

- **TRANSFER_LEARNING**

  The new hyperparameter tuning job can include input data, hyperparameter ranges, maximum number of concurrent training jobs, and maximum number of training jobs that are different than those of its parent hyperparameter tuning jobs. The training image can also be a different version from the version used in the parent hyperparameter tuning job. You can also change hyperparameters from tunable to static, and from static to tunable, but the total number of static plus tunable hyperparameters must remain the same as it is in all parent jobs. The objective metric for the new tuning job must be the same as for all parent jobs.

Type: String
Valid Values: IdenticalDataAndAlgorithm | TransferLearning

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
InferenceSpecification

Service: Amazon SageMaker Service

Defines how to perform inference generation after a training job is run.

Contents

Containers

The Amazon ECR registry path of the Docker image that contains the inference code.

Type: Array of ModelPackageContainerDefinition (p. 600) objects

Array Members: Fixed number of 1 item.

Required: Yes

SupportedContentTypes

The supported MIME types for the input data.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .*

Required: Yes

SupportedRealtimeInferenceInstanceTypes

A list of the instance types that are used to generate inferences in real-time.

Type: Array of strings

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge |
ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge |
ml.m4.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge |
ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge |
ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.12xlarge | ml.m5d.24xlarge |
ml.c4.large | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge |
ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge |
ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge |
ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.large |
ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge |
ml.c5d.18xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge |
ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large |
ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.12xlarge |
ml.r5.24xlarge | ml.r5d.large | ml.r5d.xlarge | ml.r5d.2xlarge |
ml.r5d.4xlarge | ml.r5d.12xlarge | ml.r5d.24xlarge | ml.inf1.xlarge |
ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge

Required: Yes

SupportedResponseMIMETypes

The supported MIME types for the output data.

Type: Array of strings

Length Constraints: Maximum length of 1024.
InferenceSpecification

Pattern: ^[-\w]+/+.+

Required: Yes

SupportedTransformInstanceTypes

A list of the instance types on which a transformation job can be run or on which an endpoint can be deployed.

Type: Array of strings

Array Members: Minimum number of 1 item.

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge
| ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge
| ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge
| ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge
| ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.m5.large
| ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
InputConfig

Service: Amazon SageMaker Service

Contains information about the location of input model artifacts, the name and shape of the expected data inputs, and the framework in which the model was trained.

Contents

DataInputConfig

Specifies the name and shape of the expected data inputs for your trained model with a JSON dictionary form. The data inputs are InputConfig:Framework (p. 572) specific.

- **TensorFlow**: You must specify the name and shape (NHWC format) of the expected data inputs using a dictionary format for your trained model. The dictionary formats required for the console and CLI are different.
  - Examples for one input:
    - If using the console,{"input":\[1,1024,1024,3\]}
    - If using the CLI,{"input":\[1,1024,1024,3\]}
  - Examples for two inputs:
    - If using the console,{"data1": [1,28,28,1], "data2":\[1,28,28,1\]}
    - If using the CLI,{"data1": [1,28,28,1], "data2":\[1,28,28,1\]}

- **Keras**: You must specify the name and shape (NCHW format) of expected data inputs using a dictionary format for your trained model. Note that while Keras model artifacts should be uploaded in NHWC (channel-last) format, DataInputConfig should be specified in NCHW (channel-first) format. The dictionary formats required for the console and CLI are different.
  - Examples for one input:
    - If using the console,{"input_1":\[1,3,224,224\]}
    - If using the CLI,{"input_1":\[1,3,224,224\]}
  - Examples for two inputs:
    - If using the console,{"input_1": [1,3,224,224], "input_2":\[1,3,224,224\]}
    - If using the CLI,{"input_1": [1,3,224,224], "input_2":\[1,3,224,224\]}

- **MXNet/ONNX**: You must specify the name and shape (NCHW format) of the expected data inputs in order using a dictionary format for your trained model. The dictionary formats required for the console and CLI are different.
  - Examples for one input:
    - If using the console,{"data":\[1,3,1024,1024\]}
    - If using the CLI,{"data":\[1,3,1024,1024\]}
  - Examples for two inputs:
    - If using the console,{"var1": \[1,1,28,28\], "var2":\[1,1,28,28\]}
    - If using the CLI,{"var1": \[1,1,28,28\], "var2":\[1,1,28,28\]}

- **PyTorch**: You can either specify the name and shape (NCHW format) of expected data inputs in order using a dictionary format for your trained model or you can specify the shape only using a list format. The dictionary formats required for the console and CLI are different. The list formats for the console and CLI are the same.
  - Examples for one input in dictionary format:
    - If using the console,{"input0":\[1,3,224,224\]}
    - If using the CLI,{"input0":\[1,3,224,224\]}
  - Example for one input in list format: [[1,3,224,224]]
  - Examples for two inputs in dictionary format:
InputConfig

- If using the console, 
  \{ "input0": [1, 3, 224, 224], 
  "input1": [1, 3, 224, 224] \}
- If using the CLI, 
  \{"input0": [1, 3, 224, 224], \"input1\": [1, 3, 224, 224] \}
- Example for two inputs in list format: 
  \[[1, 3, 224, 224], [1, 3, 224, 224] \]
- XGBOOST: input data name and shape are not needed.

Type: String


Pattern: \[\S\s\]+

Required: Yes

### Framework

Identifies the framework in which the model was trained. For example: TENSORFLOW.

Type: String

Valid Values: TENSORFLOW | KERAS | MXNET | ONNX | PYTORCH | XGBOOST

Required: Yes

### S3Uri

The S3 path where the model artifacts, which result from model training, are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3):\/\/(\^[^/]+)\/?\(.*\)$

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
IntegerParameterRange

Service: Amazon SageMaker Service

For a hyperparameter of the integer type, specifies the range that a hyperparameter tuning job searches.

Contents

MaxValue

The maximum value of the hyperparameter to search.

Type: String

Length Constraints: Maximum length of 256.

Pattern: . *

Required: Yes

MinValue

The minimum value of the hyperparameter to search.

Type: String

Length Constraints: Maximum length of 256.

Pattern: . *

Required: Yes

Name

The name of the hyperparameter to search.

Type: String

Length Constraints: Maximum length of 256.

Pattern: . *

Required: Yes

ScalingType

The scale that hyperparameter tuning uses to search the hyperparameter range. For information about choosing a hyperparameter scale, see Hyperparameter Scaling. One of the following values:

Auto

Amazon SageMaker hyperparameter tuning chooses the best scale for the hyperparameter.

Linear

Hyperparameter tuning searches the values in the hyperparameter range by using a linear scale.

Logarithmic

Hyperparameter tuning searches the values in the hyperparameter range by using a logarithmic scale.

Logarithmic scaling works only for ranges that have only values greater than 0.

Type: String
Valid Values: Auto | Linear | Logarithmic | ReverseLogarithmic

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
IntegerParameterRangeSpecification

 Defines the possible values for an integer hyperparameter.

Contents

MaxValue

The maximum integer value allowed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: . *

Required: Yes

MinValue

The minimum integer value allowed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: . *

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
JupyterServerAppSettings
Service: Amazon SageMaker Service

Jupyter server's app settings.

Contents

DefaultResourceSpec

The instance type and quantity.

Type: ResourceSpec (p. 672) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
KernelGatewayAppSettings
Service: Amazon SageMaker Service

The kernel gateway app settings.

Contents

DefaultResourceSpec

The instance type and quantity.

Type: ResourceSpec (p. 672) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
LabelCounters

Service: Amazon SageMaker Service

Provides a breakdown of the number of objects labeled.

Contents

FailedNonRetryableError

The total number of objects that could not be labeled due to an error.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

HumanLabeled

The total number of objects labeled by a human worker.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

MachineLabeled

The total number of objects labeled by automated data labeling.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

TotalLabeled

The total number of objects labeled.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

Unlabeled

The total number of objects not yet labeled.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for Ruby V3
LabelCountersForWorkteam
Service: Amazon SageMaker Service

Provides counts for human-labeled tasks in the labeling job.

Contents

HumanLabeled
The total number of data objects labeled by a human worker.
Type: Integer
Valid Range: Minimum value of 0.
Required: No

PendingHuman
The total number of data objects that need to be labeled by a human worker.
Type: Integer
Valid Range: Minimum value of 0.
Required: No

Total
The total number of tasks in the labeling job.
Type: Integer
Valid Range: Minimum value of 0.
Required: No

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
LabelingJobAlgorithmsConfig

Service: Amazon SageMaker Service

Provides configuration information for auto-labeling of your data objects. A LabelingJobAlgorithmsConfig object must be supplied in order to use auto-labeling.

Contents

InitialActiveLearningModelArn

At the end of an auto-label job Amazon SageMaker Ground Truth sends the Amazon Resource Name (ARN) of the final model used for auto-labeling. You can use this model as the starting point for subsequent similar jobs by providing the ARN of the model here.

Type: String


Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:model/.*`

Required: No

LabelingJobAlgorithmSpecificationArn

Specifies the Amazon Resource Name (ARN) of the algorithm used for auto-labeling. You must select one of the following ARNs:

- **Image classification**
  

- **Text classification**
  

- **Object detection**
  

- **Semantic Segmentation**
  

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:*`

Required: Yes

LabelingJobResourceConfig

Provides configuration information for a labeling job.

Type: LabelingJobResourceConfig (p. 590) object

Required: No
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
LabelingJobDataAttributes
Service: Amazon SageMaker Service

Attributes of the data specified by the customer. Use these to describe the data to be labeled.

Contents

ContentClassifiers

Declares that your content is free of personally identifiable information or adult content. Amazon SageMaker may restrict the Amazon Mechanical Turk workers that can view your task based on this information.

Type: Array of strings

Array Members: Maximum number of 256 items.

Valid Values: FreeOfPersonallyIdentifiableInformation | FreeOfAdultContent

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**LabelingJobDataSource**

Service: Amazon SageMaker Service

Provides information about the location of input data.

**Contents**

**S3DataSource**

The Amazon S3 location of the input data objects.

Type: LabelingJobS3DataSource (p. 591) object

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
LabelingJobForWorkteamSummary

Service: Amazon SageMaker Service

Provides summary information for a work team.

Contents

**CreationTime**

The date and time that the labeling job was created.

Type: Timestamp

Required: Yes

**JobReferenceCode**

A unique identifier for a labeling job. You can use this to refer to a specific labeling job.

Type: String

Length Constraints: Minimum length of 1.

Pattern: .+

Required: Yes

**LabelCounters**

Provides information about the progress of a labeling job.

Type: LabelCountersForWorkteam (p. 580) object

Required: No

**LabelingJobName**

The name of the labeling job that the work team is assigned to.

Type: String


Pattern: ^[a-zA-Z0-9-]*[^a-zA-Z0-9-]*$

Required: No

**NumberOfHumanWorkersPerDataObject**

The configured number of workers per data object.

Type: Integer


Required: No

**WorkRequesterAccountId**

Type: String

Pattern: ^\d+$

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
LabelingJobInputConfig

Service: Amazon SageMaker Service

Input configuration information for a labeling job.

Contents

DataAttributes

Attributes of the data specified by the customer.

Type: LabelingJobDataAttributes (p. 583) object

Required: No

DataSource

The location of the input data.

Type: LabelingJobDataSource (p. 584) object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
LabelingJobOutput
Service: Amazon SageMaker Service

Specifies the location of the output produced by the labeling job.

Contents

FinalActiveLearningModelArn

The Amazon Resource Name (ARN) for the most recent Amazon SageMaker model trained as part of automated data labeling.

Type: String


Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:model/.*

Required: No

OutputDatasetS3Uri

The Amazon S3 bucket location of the manifest file for labeled data.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^/]+)/(.*$)

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
LabelingJobOutputConfig

Service: Amazon SageMaker Service

Output configuration information for a labeling job.

Contents

KmsKeyId

The AWS Key Management Service ID of the key used to encrypt the output data, if any.

If you use a KMS key ID or an alias of your master key, the Amazon SageMaker execution role must include permissions to call `kms:Encrypt`. If you don't provide a KMS key ID, Amazon SageMaker uses the default KMS key for Amazon S3 for your role's account. Amazon SageMaker uses server-side encryption with KMS-managed keys for `LabelingJobOutputConfig`. If you use a bucket policy with an `s3:PutObject` permission that only allows objects with server-side encryption, set the condition key of `s3:x-amz-server-side-encryption` to "aws:kms". For more information, see KMS-Managed Encryption Keys in the Amazon Simple Storage Service Developer Guide.

The KMS key policy must grant permission to the IAM role that you specify in your `CreateLabelingJob` request. For more information, see Using Key Policies in AWS KMS in the AWS Key Management Service Developer Guide.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .*

Required: No

S3OutputPath

The Amazon S3 location to write output data.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^https|s3://(^[^/]+)/(.*$)

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
LabelingJobResourceConfig

Service: Amazon SageMaker Service

Provides configuration information for labeling jobs.

Contents

VolumeKmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance(s) that run the training job. The VolumeKmsKeyId can be any of the following formats:

- // KMS Key ID
  
  "1234abcd-12ab-34cd-56ef-1234567890ab"

- // Amazon Resource Name (ARN) of a KMS Key

  "arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
LabelingJobS3DataSource

Service: Amazon SageMaker Service

The Amazon S3 location of the input data objects.

Contents

ManifestS3Uri

The Amazon S3 location of the manifest file that describes the input data objects.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^/]+)/?([^#]*$)

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
LabelingJobStoppingConditions
Service: Amazon SageMaker Service

A set of conditions for stopping a labeling job. If any of the conditions are met, the job is automatically stopped. You can use these conditions to control the cost of data labeling.

**Note**
Labeling jobs fail after 30 days with an appropriate client error message.

**Contents**

MaxHumanLabeledObjectCount

The maximum number of objects that can be labeled by human workers.

Type: Integer
Valid Range: Minimum value of 1.
Required: No

MaxPercentageOfInputDatasetLabeled

The maximum number of input data objects that should be labeled.

Type: Integer
Valid Range: Minimum value of 1. Maximum value of 100.
Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
LabelingJobSummary

Service: Amazon SageMaker Service

Provides summary information about a labeling job.

Contents

AnnotationConsolidationLambdaArn

The Amazon Resource Name (ARN) of the Lambda function used to consolidate the annotations from individual workers into a label for a data object. For more information, see Annotation Consolidation.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: arn:aws[a-z\-]*:lambda:[a-z]{2}-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9-\_\+]+(\$LATEST|[a-zA-Z0-9-\_]+)?

Required: No

CreationTime

The date and time that the job was created (timestamp).

Type: Timestamp

Required: Yes

FailureReason

If the LabelingJobStatus field is Failed, this field contains a description of the error.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

InputConfig

Input configuration for the labeling job.

Type: LabelingJobInputConfig (p. 587) object

Required: No

LabelCounters

Counts showing the progress of the labeling job.

Type: LabelCounters (p. 578) object

Required: Yes

LabelingJobArn

The Amazon Resource Name (ARN) assigned to the labeling job when it was created.

Type: String

Length Constraints: Maximum length of 2048.
Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:labeling-job/.*`

Required: Yes

**LabelingJobName**

The name of the labeling job.

Type: String


Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`  

Required: Yes

**LabelingJobOutput**

The location of the output produced by the labeling job.

Type: `LabelingJobOutput (p. 588)` object

Required: No

**LabelingJobStatus**

The current status of the labeling job.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: Yes

**LastModifiedTime**

The date and time that the job was last modified (timestamp).

Type: Timestamp

Required: Yes

**PreHumanTaskLambdaArn**

The Amazon Resource Name (ARN) of a Lambda function. The function is run before each data object is sent to a worker.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:lambda:[a-z]{2}-[a-z]+-[\d]{12}:function:[a-zA-Z0-9-\-_\.]+(:\($LATEST|[a-zA-Z0-9-\-_]+)$)?`  

Required: Yes

**WorkteamArn**

The Amazon Resource Name (ARN) of the work team assigned to the job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:workteam/.*`

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MemberDefinition

Service: Amazon SageMaker Service

Defines the Amazon Cognito user group that is part of a work team.

Contents

CognitoMemberDefinition

The Amazon Cognito user group that is part of the work team.

Type: CognitoMemberDefinition (p. 488) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MetricData

Service: Amazon SageMaker Service

The name, value, and date and time of a metric that was emitted to Amazon CloudWatch.

Contents

MetricName

The name of the metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: No

Timestamp

The date and time that the algorithm emitted the metric.

Type: Timestamp

Required: No

Value

The value of the metric.

Type: Float

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MetricDefinition
Service: Amazon SageMaker Service

Specifies a metric that the training algorithm writes to stderr or stdout. Amazon SageMaker hyperparameter tuning captures all defined metrics. You specify one metric that a hyperparameter tuning job uses as its objective metric to choose the best training job.

Contents

Name

The name of the metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: Yes

Regex

A regular expression that searches the output of a training job and gets the value of the metric. For more information about using regular expressions to define metrics, see Defining Objective Metrics.

Type: String


Pattern: .+

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ModelArtifacts
Service: Amazon SageMaker Service
Provides information about the location that is configured for storing model artifacts.

Contents

S3ModelArtifacts
The path of the S3 object that contains the model artifacts. For example, s3://bucket-name/keynameprefix/model.tar.gz.
Type: String
Length Constraints: Maximum length of 1024.
Pattern: ^(https|s3)://([^/]+)/?([^/]+)/(.*)$
Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ModelPackageContainerDefinition
Describes the Docker container for the model package.

Contents

ContainerHostname
The DNS host name for the Docker container.
Type: String
Length Constraints: Maximum length of 63.
Pattern: \^[a-zA-Z0-9\(-*\[a-zA-Z0-9\)]\*$
Required: No

Image
The Amazon EC2 Container Registry (Amazon ECR) path where inference code is stored.
If you are using your own custom algorithm instead of an algorithm provided by Amazon SageMaker, the inference code must meet Amazon SageMaker requirements. Amazon SageMaker supports both registry/repository[:tag] and registry/repository[@digest] image path formats. For more information, see Using Your Own Algorithms with Amazon SageMaker.
Type: String
Length Constraints: Maximum length of 255.
Pattern: [\S]*
Required: Yes

ImageDigest
An MD5 hash of the training algorithm that identifies the Docker image used for training.
Type: String
Length Constraints: Maximum length of 72.
Pattern: \^[SS][Hh][Aa]256:[0-9a-fA-F]{64}$
Required: No

ModelDataUrl
The Amazon S3 path where the model artifacts, which result from model training, are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).
Type: String
Length Constraints: Maximum length of 1024.
Pattern: \^(https|s3)://([^/\]+)/(.+)$
Required: No

ProductId
The AWS Marketplace product ID of the model package.
Type: String

Length Constraints: Maximum length of 256.

Pattern: ^[a-zA-Z0-9](-[a-zA-Z0-9]+)*$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ModelPackageStatusDetails
Service: Amazon SageMaker Service

Specifies the validation and image scan statuses of the model package.

Contents

ImageScanStatuses
The status of the scan of the Docker image container for the model package.

Type: Array of ModelPackageStatusItem (p. 603) objects

Required: No

ValidationStatuses
The validation status of the model package.

Type: Array of ModelPackageStatusItem (p. 603) objects

Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ModelPackageStatusItem

Service: Amazon SageMaker Service

Represents the overall status of a model package.

Contents

FailureReason

if the overall status is Failed, the reason for the failure.

Type: String

Required: No

Name

The name of the model package for which the overall status is being reported.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

Required: Yes

Status

The current status.

Type: String

Valid Values: NotStarted | InProgress | Completed | Failed

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ModelPackageSummary

Service: Amazon SageMaker Service

Provides summary information about a model package.

Contents

**CreationTime**

A timestamp that shows when the model package was created.

Type: Timestamp

Required: Yes

**ModelPackageArn**

The Amazon Resource Name (ARN) of the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:model-package/.*`

Required: Yes

**ModelPackageDescription**

A brief description of the model package.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]`*

Required: No

**ModelPackageName**

The name of the model package.

Type: String


Pattern: `^[a-zA-Z0-9-]*[a-zA-Z0-9-]*$`

Required: Yes

**ModelPackageStatus**

The overall status of the model package.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for Ruby V3
ModelPackageValidationProfile
Service: Amazon SageMaker Service

Contains data, such as the inputs and targeted instance types that are used in the process of validating the model package.

The data provided in the validation profile is made available to your buyers on AWS Marketplace.

Contents

**ProfileName**

The name of the profile for the model package.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$

Required: Yes

**TransformJobDefinition**

The `TransformJobDefinition` object that describes the transform job used for the validation of the model package.

Type: `TransformJobDefinition (p. 712)` object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ModelPackageValidationSpecification

Service: Amazon SageMaker Service

Specifies batch transform jobs that Amazon SageMaker runs to validate your model package.

Contents

ValidationProfiles

An array of ModelPackageValidationProfile objects, each of which specifies a batch transform job that Amazon SageMaker runs to validate your model package.

Type: Array of ModelPackageValidationProfile (p. 606) objects

Array Members: Fixed number of 1 item.

Required: Yes

ValidationRole

The IAM roles to be used for the validation of the model package.

Type: String


Pattern: ^arn:aws[a-z\-]*:iam::\d{12}:role/?[a-zA-Z0-9\-_0-9+=,.@\-_]+$ 

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ModelSummary
Service: Amazon SageMaker Service

Provides summary information about a model.

Contents

CreationTime
A timestamp that indicates when the model was created.
Type: Timestamp
Required: Yes

ModelArn
The Amazon Resource Name (ARN) of the model.
Type: String
Pattern: \[arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:model/\.
Required: Yes

ModelName
The name of the model that you want a summary for.
Type: String
Length Constraints: Maximum length of 63.
Pattern: ^[a-zA-Z0-9][-]*[a-zA-Z0-9]*
Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MonitoringAppSpecification
Service: Amazon SageMaker Service

Container image configuration object for the monitoring job.

Contents

ContainerArguments
An array of arguments for the container used to run the monitoring job.
Type: Array of strings
Array Members: Minimum number of 1 item. Maximum number of 50 items.
Length Constraints: Maximum length of 256.
Pattern: . *
Required: No

ContainerEntrypoint
Specifies the entrypoint for a container used to run the monitoring job.
Type: Array of strings
Array Members: Minimum number of 1 item. Maximum number of 100 items.
Length Constraints: Maximum length of 256.
Pattern: . *
Required: No

ImageUri
The container image to be run by the monitoring job.
Type: String
Length Constraints: Maximum length of 255.
Pattern: . *
Required: Yes

PostAnalyticsProcessorSourceUri
An Amazon S3 URI to a script that is called after analysis has been performed. Applicable only for the built-in (first party) containers.
Type: String
Length Constraints: Maximum length of 1024.
Pattern: ^(https|s3):/(/[^/]+)?(.*$)
Required: No

RecordPreprocessorSourceUri
An Amazon S3 URI to a script that is called per row prior to running analysis. It can base64 decode the payload and convert it into a flatted json so that the built-in container can use the converted data. Applicable only for the built-in (first party) containers.
Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^/]+)/(.*$)

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MonitorBaselineConfig
Service: Amazon SageMaker Service

Configuration for monitoring constraints and monitoring statistics. These baseline resources are compared against the results of the current job from the series of jobs scheduled to collect data periodically.

Contents

ConstraintsResource

The baseline constraint file in Amazon S3 that the current monitoring job should validated against.

Type: MonitoringConstraintsResource (p. 614) object

Required: No

StatisticsResource

The baseline statistics file in Amazon S3 that the current monitoring job should be validated against.

Type: MonitoringStatisticsResource (p. 627) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MonitoringClusterConfig

Service: Amazon SageMaker Service

Configuration for the cluster used to run model monitoring jobs.

Contents

InstanceCount

The number of ML compute instances to use in the model monitoring job. For distributed processing jobs, specify a value greater than 1. The default value is 1.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: Yes

InstanceType

The ML compute instance type for the processing job.

Type: String

Valid Values: ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge
| ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge
| ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge
| ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge
| ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge
| ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.m5.large
| ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge
| ml.m5.24xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge
| ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge

Required: Yes

VolumeKmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance(s) that run the model monitoring job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .*

Required: No

VolumeSizeInGB

The size of the ML storage volume, in gigabytes, that you want to provision. You must specify sufficient ML storage for your scenario.

Type: Integer


Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MonitoringConstraintsResource

Service: Amazon SageMaker Service

The constraints resource for a monitoring job.

Contents

S3Uri

The Amazon S3 URI for the constraints resource.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^https?://([\^/]*)?/(.*)$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MonitoringExecutionSummary
Service: Amazon SageMaker Service

Summary of information about the last monitoring job to run.

Contents

CreationTime
The time at which the monitoring job was created.
Type: Timestamp
Required: Yes

EndpointName
The name of the endpoint used to run the monitoring job.
Type: String
Length Constraints: Maximum length of 63.
Pattern: ^[a-zA-Z0-9][-]*[a-zA-Z0-9]\]*
Required: No

FailureReason
Contains the reason a monitoring job failed, if it failed.
Type: String
Length Constraints: Maximum length of 1024.
Required: No

LastModifiedTime
A timestamp that indicates the last time the monitoring job was modified.
Type: Timestamp
Required: Yes

MonitoringExecutionStatus
The status of the monitoring job.
Type: String
Valid Values: Pending | Completed | CompletedWithViolations | InProgress | Failed | Stopping | Stopped
Required: Yes

MonitoringScheduleName
The name of the monitoring schedule.
Type: String
MonitoringExecutionSummary

Pattern: ^[a-zA-Z0-9\-]*[a-zA-Z0-9]$*

Required: Yes

**ProcessingJobArn**

The Amazon Resource Name (ARN) of the monitoring job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:processing-job/.*

Required: No

**ScheduledTime**

The time the monitoring job was scheduled.

Type: Timestamp

Required: Yes

---

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MonitoringInput

Service: Amazon SageMaker Service

The inputs for a monitoring job.

Contents

EndpointInput

The endpoint for a monitoring job.

Type: EndpointInput (p. 514) object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MonitoringJobDefinition

Service: Amazon SageMaker Service

Defines the monitoring job.

Contents

BaselineConfig

Baseline configuration used to validate that the data conforms to the specified constraints and statistics

Type: MonitoringBaselineConfig (p. 611) object

Required: No

Environment

Sets the environment variables in the Docker container.

Type: String to string map

Key Length Constraints: Maximum length of 256.

Key Pattern: [a-zA-Z_][a-zA-Z0-9_]*

Value Length Constraints: Maximum length of 256.

Value Pattern: \S\s]*

Required: No

MonitoringAppSpecification

Configures the monitoring job to run a specified Docker container image.

Type: MonitoringAppSpecification (p. 609) object

Required: Yes

MonitoringInputs

The array of inputs for the monitoring job. Currently we support monitoring an Amazon SageMaker Endpoint.

Type: Array of MonitoringInput (p. 617) objects

Array Members: Fixed number of 1 item.

Required: Yes

MonitoringOutputConfig

The array of outputs from the monitoring job to be uploaded to Amazon Simple Storage Service (Amazon S3).

Type: MonitoringOutputConfig (p. 621) object

Required: Yes

MonitoringResources

Identifies the resources, ML compute instances, and ML storage volumes to deploy for a monitoring job. In distributed processing, you specify more than one instance.
Type: MonitoringResources (p. 622) object

Required: Yes

**NetworkConfig**

Specifies networking options for an monitoring job.

Type: NetworkConfig (p. 630) object

Required: No

**RoleArn**

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String


Pattern: `^arn:aws\[[a-z\-]*::iam::\{12\}:role/?[a-zA-Z0-9=+.@\-_]+$`

Required: Yes

**StoppingCondition**

Specifies a time limit for how long the monitoring job is allowed to run.

Type: MonitoringStoppingCondition (p. 628) object

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MonitoringOutput

Service: Amazon SageMaker Service

The output object for a monitoring job.

Contents

S3Output

The Amazon S3 storage location where the results of a monitoring job are saved.

Type: MonitoringS3Output (p. 623) object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MonitoringOutputConfig

Service: Amazon SageMaker Service

The output configuration for monitoring jobs.

Contents

KmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt the model artifacts at rest using Amazon S3 server-side encryption.

Type: String
Length Constraints: Maximum length of 2048.
Pattern: . *

Required: No

MonitoringOutputs

Monitoring outputs for monitoring jobs. This is where the output of the periodic monitoring jobs is uploaded.

Type: Array of MonitoringOutput (p. 620) objects
Array Members: Fixed number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for Ruby V3
MonitoringResources

Service: Amazon SageMaker Service

Identifies the resources to deploy for a monitoring job.

Contents

ClusterConfig

The configuration for the cluster resources used to run the processing job.

Type: MonitoringClusterConfig (p. 612) object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MonitoringS3Output
Service: Amazon SageMaker Service

Information about where and how you want to store the results of a monitoring job.

Contents

LocalPath
The local path to the Amazon S3 storage location where Amazon SageMaker saves the results of a monitoring job. LocalPath is an absolute path for the output data.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .*

Required: Yes

S3UploadMode
Whether to upload the results of the monitoring job continuously or after the job completes.

Type: String

Valid Values: Continuous | EndOfJob

Required: No

S3Uri
A URI that identifies the Amazon S3 storage location where Amazon SageMaker saves the results of a monitoring job.

Type: String

Length Constraints: Maximum length of 512.

Pattern: ^(https|s3)://([^/]+)/?([^/])#

Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MonitoringScheduleConfig

Service: Amazon SageMaker Service

Configures the monitoring schedule and defines the monitoring job.

Contents

MonitoringJobDefinition

Defines the monitoring job.

Type: MonitoringJobDefinition (p. 618) object

Required: Yes

ScheduleConfig

Configures the monitoring schedule.

Type: ScheduleConfig (p. 676) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MonitoringScheduleSummary
Service: Amazon SageMaker Service
Summarizes the monitoring schedule.

Contents

CreationTime
The creation time of the monitoring schedule.
Type: Timestamp
Required: Yes

EndpointName
The name of the endpoint using the monitoring schedule.
Type: String
Length Constraints: Maximum length of 63.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$
Required: No

LastModifiedTime
The last time the monitoring schedule was modified.
Type: Timestamp
Required: Yes

MonitoringScheduleArn
The Amazon Resource Name (ARN) of the monitoring schedule.
Type: String
Length Constraints: Maximum length of 256.
Pattern: .*
Required: Yes

MonitoringScheduleName
The name of the monitoring schedule.
Type: String
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$
Required: Yes

MonitoringScheduleStatus
The status of the monitoring schedule.
Type: String
Valid Values: Pending | Failed | Scheduled | Stopped

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MonitoringStatisticsResource
Service: Amazon SageMaker Service

The statistics resource for a monitoring job.

Contents

S3Uri

The Amazon S3 URI for the statistics resource.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^/]+)/?([^/]+)$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MonitoringStoppingCondition
Service: Amazon SageMaker Service

A time limit for how long the monitoring job is allowed to run before stopping.

Contents

MaxRuntimeInSeconds
The maximum runtime allowed in seconds.
Type: Integer
Valid Range: Minimum value of 1. Maximum value of 86400.
Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
NestedFilters

Service: Amazon SageMaker Service

Defines a list of NestedFilters objects. To satisfy the conditions specified in the NestedFilters call, a resource must satisfy the conditions of all of the filters.

For example, you could define a NestedFilters using the training job's InputDataConfig property to filter on Channel objects.

A NestedFilters object contains multiple filters. For example, to find all training jobs whose name contains train and that have cat/data in their S3Uri (specified in InputDataConfig), you need to create a NestedFilters object that specifies the InputDataConfig property with the following Filter objects:

- '{Name:"InputDataConfig.ChannelName", "Operator":"EQUALS", "Value":"train"}',
- '{Name:"InputDataConfig.DataSource.S3DataSource.S3Uri", "Operator":"CONTAINS", "Value":"cat/data"}'

Contents

Filters

A list of filters. Each filter acts on a property. Filters must contain at least one Filters value. For example, a NestedFilters call might include a filter on the PropertyName parameter of the InputDataConfig property: InputDataConfig.DataSource.S3DataSource.S3Uri.

Type: Array of Filter (p. 526) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: Yes

NestedPropertyName

The name of the property to use in the nested filters. The value must match a listed property name, such as InputDataConfig.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
NetworkConfig

Service: Amazon SageMaker Service

Networking options for a job, such as network traffic encryption between containers, whether to allow inbound and outbound network calls to and from containers, and the VPC subnets and security groups to use for VPC-enabled jobs.

Contents

EnableNetworkIsolation

Whether to allow inbound and outbound network calls to and from the containers used for the processing job.

Type: Boolean

Required: No

VpcConfig

Specifies a VPC that your training jobs and hosted models have access to. Control access to and from your training and model containers by configuring the VPC. For more information, see Protect Endpoints by Using an Amazon Virtual Private Cloud and Protect Training Jobs by Using an Amazon Virtual Private Cloud.

Type: VpcConfig (p. 752) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
NotebookInstanceLifecycleConfigSummary

Service: Amazon SageMaker Service

Provides a summary of a notebook instance lifecycle configuration.

Contents

**CreationTime**
A timestamp that tells when the lifecycle configuration was created.
Type: Timestamp
Required: No

**LastModifiedTime**
A timestamp that tells when the lifecycle configuration was last modified.
Type: Timestamp
Required: No

**NotebookInstanceLifecycleConfigArn**
The Amazon Resource Name (ARN) of the lifecycle configuration.
Type: String
Length Constraints: Maximum length of 256.
Required: Yes

**NotebookInstanceLifecycleConfigName**
The name of the lifecycle configuration.
Type: String
Length Constraints: Maximum length of 63.
Pattern: \^[a-zA-Z0-9]*[a-zA-Z0-9-]*\^[a-zA-Z0-9-]*[a-zA-Z0-9]*
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**NotebookInstanceLifecycleHook**

*Service: Amazon SageMaker Service*

Contains the notebook instance lifecycle configuration script.

Each lifecycle configuration script has a limit of 16384 characters.

The value of the `$PATH` environment variable that is available to both scripts is `/sbin:bin:/usr/sbin:/usr/bin`.


Lifecycle configuration scripts cannot run for longer than 5 minutes. If a script runs for longer than 5 minutes, it fails and the notebook instance is not created or started.

For information about notebook instance lifestyle configurations, see Step 2.1: (Optional) Customize a Notebook Instance.

**Contents**

**Content**

A base64-encoded string that contains a shell script for a notebook instance lifecycle configuration.

Type: String


Pattern: `[\S\s]+`

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**NotebookInstanceSummary**

Service: Amazon SageMaker Service

Provides summary information for an Amazon SageMaker notebook instance.

**Contents**

**AdditionalCodeRepositories**

An array of up to three Git repositories associated with the notebook instance. These can be either the names of Git repositories stored as resources in your account, or the URL of Git repositories in AWS CodeCommit or in any other Git repository. These repositories are cloned at the same level as the default repository of your notebook instance. For more information, see Associating Git Repositories with Amazon SageMaker Notebook Instances.

Type: Array of strings

Array Members: Maximum number of 3 items.


Pattern: `^https://([^/]+)/?(.*)$|^([a-zA-Z0-9][-]*[a-zA-Z0-9])*$`

Required: No

**CreationTime**

A timestamp that shows when the notebook instance was created.

Type: Timestamp

Required: No

**DefaultCodeRepository**

The Git repository associated with the notebook instance as its default code repository. This can be either the name of a Git repository stored as a resource in your account, or the URL of a Git repository in AWS CodeCommit or in any other Git repository. When you open a notebook instance, it opens in the directory that contains this repository. For more information, see Associating Git Repositories with Amazon SageMaker Notebook Instances.

Type: String


Pattern: `^https://([^/]+)/?(.*)$|^([a-zA-Z0-9][-]*[a-zA-Z0-9])*$`

Required: No

**InstanceType**

The type of ML compute instance that the notebook instance is running on.

Type: String

Valid Values: `ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge`
## NotebookInstanceSummary

| ml.c5.18xlarge | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge |
| ml.c5d.9xlarge | ml.c5d.18xlarge | ml.p2.xlarge | ml.p2.8xlarge |
| ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge |

**LastModifiedTime**

A timestamp that shows when the notebook instance was last modified.

Type: Timestamp

Required: No

**NotebookInstanceArn**

The Amazon Resource Name (ARN) of the notebook instance.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

**NotebookInstanceLifecycleConfigName**

The name of a notebook instance lifecycle configuration associated with this notebook instance.

For information about notebook instance lifestyle configurations, see Step 2.1: (Optional) Customize a Notebook Instance.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  

Required: No

**NotebookInstanceName**

The name of the notebook instance that you want a summary for.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  

Required: Yes

**NotebookInstanceStatus**

The status of the notebook instance.

Type: String

Valid Values: Pending | InService | Stopping | Stopped | Failed | Deleting | Updating

Required: No

**Url**

The URL that you use to connect to the Jupyter instance running in your notebook instance.
NotebookInstanceSummary

Type: String
Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
NotificationConfiguration

Service: Amazon SageMaker Service

Configures SNS notifications of available or expiring work items for work teams.

Contents

NotificationTopicArn

The ARN for the SNS topic to which notifications should be published.

Type: String

Pattern: `arn:aws[a-z\-]*:sns:[a-z0-9\-]*:[0-9]{12}:[a-zA-Z0-9\-_.-]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ObjectiveStatusCounters

Specifies the number of training jobs that this hyperparameter tuning job launched, categorized by the status of their objective metric. The objective metric status shows whether the final objective metric for the training job has been evaluated by the tuning job and used in the hyperparameter tuning process.

Contents

Failed

The number of training jobs whose final objective metric was not evaluated and used in the hyperparameter tuning process. This typically occurs when the training job failed or did not emit an objective metric.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

Pending

The number of training jobs that are in progress and pending evaluation of their final objective metric.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

Succeeded

The number of training jobs whose final objective metric was evaluated by the hyperparameter tuning job and used in the hyperparameter tuning process.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
OutputConfig

Service: Amazon SageMaker Service

Contains information about the output location for the compiled model and the device (target) that the model runs on.

Contents

S3OutputLocation

Identifies the S3 path where you want Amazon SageMaker to store the model artifacts. For example, s3://bucket-name/key-name-prefix.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://(/[^/]+)?([^/]*$)

Required: Yes

TargetDevice

Identifies the device that you want to run your model on after it has been compiled. For example: ml_c5.

Type: String

Valid Values: lambda | ml_m4 | ml_m5 | ml_c4 | ml_c5 | ml_p2 | ml_p3 | ml_inf1 | jetson_tx1 | jetson_tx2 | jetson_nano | jetson_xavier | rasp3b | imx8qm | deeplens | rk3399 | rk3288 | aisage | sbe_c | qcs605 | qcs603 | sitara_am57x | amba_cv22

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
OutputDataConfig

Service: Amazon SageMaker Service

Provides information about how to store model training results (model artifacts).

Contents

KmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt the model artifacts at rest using Amazon S3 server-side encryption. The KmsKeyId can be any of the following formats:

- // KMS Key ID
  "1234abcd-12ab-34cd-56ef-1234567890ab"
- // Amazon Resource Name (ARN) of a KMS Key
  "arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"
- // KMS Key Alias
  "alias/ExampleAlias"
- // Amazon Resource Name (ARN) of a KMS Key Alias

If you use a KMS key ID or an alias of your master key, the Amazon SageMaker execution role must include permissions to call kms:Encrypt. If you don’t provide a KMS key ID, Amazon SageMaker uses the default KMS key for Amazon S3 for your role’s account. Amazon SageMaker uses server-side encryption with KMS-managed keys for OutputDataConfig. If you use a bucket policy with an s3:PutObject permission that only allows objects with server-side encryption, set the condition key of s3:x-amz-server-side-encryption to "aws:kms". For more information, see KMS-Managed Encryption Keys in the Amazon Simple Storage Service Developer Guide.

The KMS key policy must grant permission to the IAM role that you specify in your CreateTrainingJob, CreateTransformJob, or CreateHyperParameterTuningJob requests. For more information, see Using Key Policies in AWS KMS in the AWS Key Management Service Developer Guide.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .*

Required: No

S3OutputPath

Identifies the S3 path where you want Amazon SageMaker to store the model artifacts. For example, s3://bucket-name/key-name-prefix.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(http|s3)://([^/]+)/(.*$)

Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ParameterRange
Service: Amazon SageMaker Service

Defines the possible values for categorical, continuous, and integer hyperparameters to be used by an algorithm.

Contents

CategoricalParameterRangeSpecification

A CategoricalParameterRangeSpecification object that defines the possible values for a categorical hyperparameter.

Type: CategoricalParameterRangeSpecification (p. 480) object

Required: No

ContinuousParameterRangeSpecification

A ContinuousParameterRangeSpecification object that defines the possible values for a continuous hyperparameter.

Type: ContinuousParameterRangeSpecification (p. 496) object

Required: No

IntegerParameterRangeSpecification

A IntegerParameterRangeSpecification object that defines the possible values for an integer hyperparameter.

Type: IntegerParameterRangeSpecification (p. 575) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ParameterRanges
Service: Amazon SageMaker Service

Specifies ranges of integer, continuous, and categorical hyperparameters that a hyperparameter tuning job searches. The hyperparameter tuning job launches training jobs with hyperparameter values within these ranges to find the combination of values that result in the training job with the best performance as measured by the objective metric of the hyperparameter tuning job.

Note
You can specify a maximum of 20 hyperparameters that a hyperparameter tuning job can search over. Every possible value of a categorical parameter range counts against this limit.

Contents

CategoricalParameterRanges
The array of CategoricalParameterRange (p. 479) objects that specify ranges of categorical hyperparameters that a hyperparameter tuning job searches. Type: Array of CategoricalParameterRange (p. 479) objects Array Members: Minimum number of 0 items. Maximum number of 20 items. Required: No

ContinuousParameterRanges
The array of ContinuousParameterRange (p. 494) objects that specify ranges of continuous hyperparameters that a hyperparameter tuning job searches. Type: Array of ContinuousParameterRange (p. 494) objects Array Members: Minimum number of 0 items. Maximum number of 20 items. Required: No

IntegerParameterRanges
The array of IntegerParameterRange (p. 573) objects that specify ranges of integer hyperparameters that a hyperparameter tuning job searches. Type: Array of IntegerParameterRange (p. 573) objects Array Members: Minimum number of 0 items. Maximum number of 20 items. Required: No

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Parent
Service: Amazon SageMaker Service

The trial that a trial component is associated with and the experiment the trial is part of. A component might not be associated with a trial. A component can be associated with multiple trials.

Contents

ExperimentName

The name of the experiment.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])* 
Required: No

TrialName

The name of the trial.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])* 
Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ParentHyperParameterTuningJob

Service: Amazon SageMaker Service

A previously completed or stopped hyperparameter tuning job to be used as a starting point for a new hyperparameter tuning job.

Contents

HyperParameterTuningJobName

The name of the hyperparameter tuning job to be used as a starting point for a new hyperparameter tuning job.

Type: String


Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*$$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ProcessingClusterConfig

Service: Amazon SageMaker Service

Configuration for the cluster used to run a processing job.

Contents

InstanceCount

The number of ML compute instances to use in the processing job. For distributed processing jobs, specify a value greater than 1. The default value is 1.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: Yes

InstanceType

The ML compute instance type for the processing job.

Type: String

Valid Values: ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge

Required: Yes

VolumeKmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance(s) that run the processing job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .*

Required: No

VolumeSizeInGB

The size of the ML storage volume in gigabytes that you want to provision. You must specify sufficient ML storage for your scenario.

Type: Integer


Required: Yes
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ProcessingInput
Service: Amazon SageMaker Service

The inputs for a processing job.

Contents

InputName
The name of the inputs for the processing job.
  Type: String
  Required: Yes

S3Input

The S3 inputs for the processing job.
  Type: ProcessingS3Input (p. 653) object
  Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
## ProcessingJobSummary

Service: Amazon SageMaker Service

Summary of information about a processing job.

### Contents

**CreationTime**

The time at which the processing job was created.

Type: Timestamp

Required: Yes

**ExitMessage**

An optional string, up to one KB in size, that contains metadata from the processing container when the processing job exits.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: \[\S\s\]*

Required: No

**FailureReason**

A string, up to one KB in size, that contains the reason a processing job failed, if it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**LastModifiedTime**

A timestamp that indicates the last time the processing job was modified.

Type: Timestamp

Required: No

**ProcessingEndTime**

The time at which the processing job completed.

Type: Timestamp

Required: No

**ProcessingJobArn**

The Amazon Resource Name (ARN) of the processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:processing-job/.*
Required: Yes

**ProcessingJobName**

The name of the processing job.

Type: String


Pattern: `^[a-zA-Z0-9]-*[a-zA-Z0-9]*`  

Required: Yes

**ProcessingJobStatus**

The status of the processing job.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ProcessingOutput
Service: Amazon SageMaker Service

Describes the results of a processing job.

Contents

OutputName

The name for the processing job output.

Type: String

Required: Yes

S3Output

Configuration for processing job outputs in Amazon S3.

Type: ProcessingS3Output (p. 655) object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ProcessingOutputConfig

Service: Amazon SageMaker Service

The output configuration for the processing job.

Contents

KmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt the processing job output. KmsKeyId can be an ID of a KMS key, ARN of a KMS key, alias of a KMS key, or alias of a KMS key. The KmsKeyId is applied to all outputs.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .*

Required: No

Outputs

Output configuration information for a processing job.

Type: Array of ProcessingOutput (p. 650) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ProcessingResources
Service: Amazon SageMaker Service

Identifies the resources, ML compute instances, and ML storage volumes to deploy for a processing job. In distributed training, you specify more than one instance.

Contents

ClusterConfig
The configuration for the resources in a cluster used to run the processing job.

Type: ProcessingClusterConfig (p. 645) object

Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ProcessingS3Input

Service: Amazon SageMaker Service

Information about where and how you want to obtain the inputs for an processing job.

Contents

**LocalPath**

The local path to the Amazon S3 bucket where you want Amazon SageMaker to download the inputs to run a processing job. LocalPath is an absolute path to the input data.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .*

Required: Yes

**S3CompressionType**

Whether to use Gzip compression for Amazon S3 storage.

Type: String

Valid Values: None | Gzip

Required: No

**S3DataDistributionType**

Whether the data stored in Amazon S3 is FullyReplicated or ShardedByS3Key.

Type: String

Valid Values: FullyReplicated | ShardedByS3Key

Required: No

**S3DataType**

Whether you use an S3Prefix or a ManifestFile for the data type. If you choose S3Prefix, S3Uri identifies a key name prefix. Amazon SageMaker uses all objects with the specified key name prefix for the processing job. If you choose ManifestFile, S3Uri identifies an object that is a manifest file containing a list of object keys that you want Amazon SageMaker to use for the processing job.

Type: String

Valid Values: ManifestFile | S3Prefix

Required: Yes

**S3InputMode**

Whether to use File or Pipe input mode. In File mode, Amazon SageMaker copies the data from the input source onto the local Amazon Elastic Block Store (Amazon EBS) volumes before starting your training algorithm. This is the most commonly used input mode. In Pipe mode, Amazon SageMaker streams input data from the source directly to your algorithm without using the EBS volume.

Type: String
Valid Values: Pipe | File
Required: Yes

**S3Uri**

The URI for the Amazon S3 storage where you want Amazon SageMaker to download the artifacts needed to run a processing job.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^/]+)/?([^/]+)$`

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ProcessingS3Output
Service: Amazon SageMaker Service

Information about where and how you want to store the results of an processing job.

Contents

LocalPath

The local path to the Amazon S3 bucket where you want Amazon SageMaker to save the results of an processing job. LocalPath is an absolute path to the input data.

Type: String
Length Constraints: Maximum length of 256.
Pattern: .*
Required: Yes

S3UploadMode

Whether to upload the results of the processing job continuously or after the job completes.

Type: String
Valid Values: Continuous | EndOfJob
Required: Yes

S3Uri

A URI that identifies the Amazon S3 bucket where you want Amazon SageMaker to save the results of a processing job.

Type: String
Length Constraints: Maximum length of 1024.
Pattern: ^(https|s3)://([^/]+)/?(.*)$
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ProcessingStoppingCondition

Service: Amazon SageMaker Service

Specifies a time limit for how long the processing job is allowed to run.

Contents

MaxRuntimeInSeconds

- Specifies the maximum runtime in seconds.
  
  Type: Integer


  Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**ProductionVariant**

Service: Amazon SageMaker Service

Identifies a model that you want to host and the resources to deploy for hosting it. If you are deploying multiple models, tell Amazon SageMaker how to distribute traffic among the models by specifying variant weights.

**Contents**

**AcceleratorType**

The size of the Elastic Inference (EI) instance to use for the production variant. EI instances provide on-demand GPU computing for inference. For more information, see Using Elastic Inference in Amazon SageMaker.

- Type: String
- Valid Values: ml.eia1.medium | ml.eia1.large | ml.eia1.xlarge | ml.eia2.medium | ml.eia2.large | ml.eia2.xlarge
- Required: No

**InitialInstanceCount**

Number of instances to launch initially.

- Type: Integer
- Valid Range: Minimum value of 1.
- Required: Yes

**InitialVariantWeight**

Determines initial traffic distribution among all of the models that you specify in the endpoint configuration. The traffic to a production variant is determined by the ratio of the VariantWeight to the sum of all VariantWeight values across all ProductionVariants. If unspecified, it defaults to 1.0.

- Type: Float
- Valid Range: Minimum value of 0.
- Required: No

**InstanceType**

The ML compute instance type.

- Type: String
- Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.12xlarge | ml.m5d.24xlarge | ml.c4.large | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.large | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge
ModelName

The name of the model that you want to host. This is the name that you specified when creating the model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*

Required: Yes

VariantName

The name of the production variant.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ProductionVariantSummary

Service: Amazon SageMaker Service

Describes weight and capacities for a production variant associated with an endpoint. If you sent a request to the UpdateEndpointWeightsAndCapacities API and the endpoint status is Updating, you get different desired and current values.

Contents

CurrentInstanceCount

The number of instances associated with the variant.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

CurrentWeight

The weight associated with the variant.

Type: Float

Valid Range: Minimum value of 0.

Required: No

DeployedImages

An array of DeployedImage objects that specify the Amazon EC2 Container Registry paths of the inference images deployed on instances of this ProductionVariant.

Type: Array of DeployedImage (p. 509) objects

Required: No

DesiredInstanceCount

The number of instances requested in the UpdateEndpointWeightsAndCapacities request.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

DesiredWeight

The requested weight, as specified in the UpdateEndpointWeightsAndCapacities request.

Type: Float

Valid Range: Minimum value of 0.

Required: No

VariantName

The name of the variant.

Type: String
Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
PropertyNameQuery
Service: Amazon SageMaker Service

Part of the SuggestionQuery type. Specifies a hint for retrieving property names that begin with the specified text.

Contents

PropertyNameHint
- Text that begins a property's name.
  - Type: String
  - Length Constraints: Minimum length of 0. Maximum length of 100.
  - Pattern: .*
  - Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Property

Service: Amazon SageMaker Service

A property name returned from a GetSearchSuggestions call that specifies a value in the PropertyNameQuery field.

Contents

PropertyName

A suggested property name based on what you entered in the search textbox in the Amazon SageMaker console.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
PublicWorkforceTaskPrice

Service: Amazon SageMaker Service

Defines the amount of money paid to an Amazon Mechanical Turk worker for each task performed.

Use one of the following prices for bounding box tasks. Prices are in US dollars and should be based on the complexity of the task; the longer it takes in your initial testing, the more you should offer.

- 0.036
- 0.048
- 0.060
- 0.072
- 0.120
- 0.240
- 0.360
- 0.480
- 0.600
- 0.720
- 0.840
- 0.960
- 1.080
- 1.200

Use one of the following prices for image classification, text classification, and custom tasks. Prices are in US dollars.

- 0.012
- 0.024
- 0.036
- 0.048
- 0.060
- 0.072
- 0.120
- 0.240
- 0.360
- 0.480
- 0.600
- 0.720
- 0.840
- 0.960
- 1.080
- 1.200

Use one of the following prices for semantic segmentation tasks. Prices are in US dollars.

- 0.840
- 0.960
- 1.080
• 1.200

Use one of the following prices for Textract AnalyzeDocument Important Form Key Amazon Augmented AI review tasks. Prices are in US dollars.

• 2.400
• 2.280
• 2.160
• 2.040
• 1.920
• 1.800
• 1.680
• 1.560
• 1.440
• 1.320
• 1.200
• 1.080
• 0.960
• 0.840
• 0.720
• 0.600
• 0.480
• 0.360
• 0.240
• 0.120
• 0.072
• 0.060
• 0.048
• 0.036
• 0.024
• 0.012

Use one of the following prices for Rekognition DetectModerationLabels Amazon Augmented AI review tasks. Prices are in US dollars.

• 1.200
• 1.080
• 0.960
• 0.840
• 0.720
• 0.600
• 0.480
• 0.360
• 0.240
• 0.120
• 0.072
• 0.060
Use one of the following prices for Amazon Augmented AI custom human review tasks. Prices are in US dollars.

- 1.200
- 1.080
- 0.960
- 0.840
- 0.720
- 0.600
- 0.480
- 0.360
- 0.240
- 0.120
- 0.072
- 0.060
- 0.048
- 0.036
- 0.024
- 0.012

Contents

AmountInUsd

Defines the amount of money paid to an Amazon Mechanical Turk worker in United States dollars.

Type: USD (p. 745) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
RenderableTask
Service: Amazon SageMaker Service

Contains input values for a task.

Contents

Input

A JSON object that contains values for the variables defined in the template. It is made available to the template under the substitution variable `task.input`. For example, if you define a variable `task.input.text` in your template, you can supply the variable in the JSON object as "text": "sample text".

Type: String


Pattern: [\S\s]+

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
RenderingError
Service: Amazon SageMaker Service

A description of an error that occurred while rendering the template.

Contents

Code
A unique identifier for a specific class of errors.
Type: String
Required: Yes

Message
A human-readable message describing the error.
Type: String
Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ResolvedAttributes
Service: Amazon SageMaker Service

The resolved attributes.

Contents

AutoMLJobObjective
Applies a metric to minimize or maximize for the job's objective.
Type: AutoMLJobObjective (p. 471) object
Required: No

CompletionCriteria
How long a job is allowed to run, or how many candidates a job is allowed to generate.
Type: AutoMLJobCompletionCriteria (p. 469) object
Required: No

ProblemType
The problem type.
Type: String
Valid Values: BinaryClassification | MulticlassClassification | Regression
Required: No

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ResourceConfig

Service: Amazon SageMaker Service

Describes the resources, including ML compute instances and ML storage volumes, to use for model training.

Contents

InstanceCount

The number of ML compute instances to use. For distributed training, provide a value greater than 1.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

InstanceType

The ML compute instance type.

Type: String

Valid Values:

- ml.m4.xlarge
- ml.m4.2xlarge
- ml.m4.4xlarge
- ml.m4.10xlarge
- ml.m4.16xlarge
- ml.g4dn.xlarge
- ml.g4dn.2xlarge
- ml.g4dn.4xlarge
- ml.g4dn.8xlarge
- ml.g4dn.12xlarge
- ml.g4dn.16xlarge
- ml.m5.large
- ml.m5.xlarge
- ml.m5.2xlarge
- ml.m5.4xlarge
- ml.m5.12xlarge
- ml.m5.24xlarge
- ml.c4.xlarge
- ml.c4.2xlarge
- ml.c4.8xlarge
- ml.p2.xlarge
- ml.p2.8xlarge
- ml.p2.16xlarge
- ml.p3.2xlarge
- ml.p3.8xlarge
- ml.p3.16xlarge
- ml.p3dn.24xlarge
- ml.c5.xlarge
- ml.c5.2xlarge
- ml.c5.4xlarge
- ml.c5.9xlarge
- ml.c5.18xlarge

Required: Yes

VolumeKmsKeyId

The AWS KMS key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance(s) that run the training job.

Note

Certain Nitro-based instances include local storage, dependent on the instance type. Local storage volumes are encrypted using a hardware module on the instance. You can't request a VolumeKmsKeyId when using an instance type with local storage.

For a list of instance types that support local instance storage, see Instance Store Volumes.

For more information about local instance storage encryption, see SSD Instance Store Volumes.

The VolumeKmsKeyId can be in any of the following formats:

- // KMS Key ID
  "1234abcd-12ab-34cd-56ef-1234567890ab"

- // Amazon Resource Name (ARN) of a KMS Key
  "arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"

Type: String
Length Constraints: Maximum length of 2048.

Pattern: .*  
Required: No

**VolumeSizeInGB**

The size of the ML storage volume that you want to provision.

ML storage volumes store model artifacts and incremental states. Training algorithms might also use the ML storage volume for scratch space. If you want to store the training data in the ML storage volume, choose `File` as the `TrainingInputMode` in the algorithm specification.

You must specify sufficient ML storage for your scenario.

**Note**  
Amazon SageMaker supports only the General Purpose SSD (gp2) ML storage volume type.

**Note**  
Certain Nitro-based instances include local storage with a fixed total size, dependent on the instance type. When using these instances for training, Amazon SageMaker mounts the local instance storage instead of Amazon EBS gp2 storage. You can't request a `VolumeSizeInGB` greater than the total size of the local instance storage. For a list of instance types that support local instance storage, including the total size per instance type, see [Instance Store Volumes](https://docs.aws.amazon.com/sagemaker/latest/dg/instance-types.html).

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ResourceLimits
Service: Amazon SageMaker Service

Specifies the maximum number of training jobs and parallel training jobs that a hyperparameter tuning job can launch.

Contents

MaxNumberOfTrainingJobs

The maximum number of training jobs that a hyperparameter tuning job can launch.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

MaxParallelTrainingJobs

The maximum number of concurrent training jobs that a hyperparameter tuning job can launch.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ResourceSpec

Service: Amazon SageMaker Service

The instance type and quantity.

Contents

EnvironmentArn

The Amazon Resource Name (ARN) of the environment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws(-[\w]+)*:sagemaker:.+[0-9]{12}:environment/[a-z0-9](-*[a-z0-9])\{0,62}$

Required: No

InstanceType

The instance type.

Type: String

Valid Values: system | ml.t3.micro | ml.t3.small | ml.t3.medium | ml.t3.large
| ml.t3.xlarge | ml.t3.2xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge
| ml.m5.4xlarge | ml.m5.8xlarge | ml.m5.12xlarge | ml.m5.16xlarge | ml.m5.24xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge
| ml.c5.9xlarge | ml.c5.12xlarge | ml.c5.18xlarge | ml.c5.24xlarge
| ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
RetentionPolicy
Service: Amazon SageMaker Service

The retention policy.

Contents

HomeEfsFileSystem

The home Amazon Elastic File System (EFS).

Type: String

Valid Values: Retain | Delete

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
S3DataSource

Service: Amazon SageMaker Service

Describes the S3 data source.

Contents

AttributeNames

A list of one or more attribute names to use that are found in a specified augmented manifest file.

Type: Array of strings

Array Members: Maximum number of 16 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .+

Required: No

S3DataDistributionType

If you want Amazon SageMaker to replicate the entire dataset on each ML compute instance that is launched for model training, specify FullyReplicated.

If you want Amazon SageMaker to replicate a subset of data on each ML compute instance that is launched for model training, specify ShardedByS3Key. If there are $n$ ML compute instances launched for a training job, each instance gets approximately $1/n$ of the number of S3 objects. In this case, model training on each machine uses only the subset of training data.

Don't choose more ML compute instances for training than available S3 objects. If you do, some nodes won't get any data and you will pay for nodes that aren't getting any training data. This applies in both File and Pipe modes. Keep this in mind when developing algorithms.

In distributed training, where you use multiple ML compute EC2 instances, you might choose ShardedByS3Key. If the algorithm requires copying training data to the ML storage volume (when TrainingInputMode is set to File), this copies $1/n$ of the number of objects.

Type: String

Valid Values: FullyReplicated | ShardedByS3Key

Required: No

S3DataType

If you choose S3Prefix, S3Uri identifies a key name prefix. Amazon SageMaker uses all objects that match the specified key name prefix for model training.

If you choose ManifestFile, S3Uri identifies an object that is a manifest file containing a list of object keys that you want Amazon SageMaker to use for model training.

If you choose AugmentedManifestFile, S3Uri identifies an object that is an augmented manifest file in JSON lines format. This file contains the data you want to use for model training. AugmentedManifestFile can only be used if the Channel's input mode is Pipe.

Type: String

Valid Values: ManifestFile | S3Prefix | AugmentedManifestFile
Required: Yes

S3DataSource

Depending on the value specified for the S3DataType, identifies either a key name prefix or a manifest. For example:

- A key name prefix might look like this: s3://bucketname/exampleprefix.
- A manifest might look like this: s3://bucketname/example.manifest

The manifest is an S3 object which is a JSON file with the following format:

The preceding JSON matches the following S3Uris:

```json
[ {"prefix": "s3://customer_bucket/some/prefix/"},
"relative/path/to/custdata-1",
"relative/path/custdata-2",
...
"relative/path/custdata-N"
]
```

The preceding JSON matches the following S3Uris:

- s3://customer_bucket/some/prefix/relative/path/to/custdata-1
- s3://customer_bucket/some/prefix/relative/path/custdata-2
...
- s3://customer_bucket/some/prefix/relative/path/custdata-N

The complete set of S3Uris in this manifest is the input data for the channel for this datasource. The object that each S3URI points to must be readable by the IAM role that Amazon SageMaker uses to perform tasks on your behalf.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://(^[^/]+)/?(.*)$

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ScheduleConfig
Service: Amazon SageMaker Service

Configuration details about the monitoring schedule.

Contents

ScheduleExpression

A cron expression that describes details about the monitoring schedule.

Currently the only supported cron expressions are:

- If you want to set the job to start every hour, please use the following:
  
  Hourly: cron(0 * ? * *)

- If you want to start the job daily:
  
  cron(0 [00-23] ? * *)

For example, the following are valid cron expressions:

- Daily at noon UTC: cron(0 12 ? * *)
- Daily at midnight UTC: cron(0 0 ? * *)

To support running every 6, 12 hours, the following are also supported:

  cron(0 [00-23]/[01-24] ? * *)

For example, the following are valid cron expressions:

- Every 12 hours, starting at 5pm UTC: cron(0 17/12 ? * *)
- Every two hours starting at midnight: cron(0 0/2 ? * *)

**Note**

- Even though the cron expression is set to start at 5PM UTC, note that there could be a delay of 0-20 minutes from the actual requested time to run the execution.
- We recommend that if you would like a daily schedule, you do not provide this parameter. Amazon SageMaker will pick a time for running every day.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
SearchExpression

Service: Amazon SageMaker Service

A multi-expression that searches for the specified resource or resources in a search. All resource objects that satisfy the expression's condition are included in the search results. You must specify at least one subexpression, filter, or nested filter. A SearchExpression can contain up to twenty elements.

A SearchExpression contains the following components:

- A list of Filter objects. Each filter defines a simple Boolean expression comprised of a resource property name, Boolean operator, and value. A SearchExpression can include only one Contains operator.
- A list of NestedFilter objects. Each nested filter defines a list of Boolean expressions using a list of resource properties. A nested filter is satisfied if a single object in the list satisfies all Boolean expressions.
- A list of SearchExpression objects. A search expression object can be nested in a list of search expression objects.
- A Boolean operator: And or Or.

Contents

Filters

A list of filter objects.

Type: Array of Filter (p. 526) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

NestedFilters

A list of nested filter objects.

Type: Array of NestedFilters (p. 629) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

Operator

A Boolean operator used to evaluate the search expression. If you want every conditional statement in all lists to be satisfied for the entire search expression to be true, specify And. If only a single conditional statement needs to be true for the entire search expression to be true, specify Or. The default value is And.

Type: String

Valid Values: And | Or

Required: No

SubExpressions

A list of search expression objects.

Type: Array of SearchExpression (p. 677) objects
Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**SearchRecord**

Service: Amazon SageMaker Service

An individual search result record that contains a single resource object.

**Contents**

**Experiment**

A summary of the properties of an experiment.

Type: [Experiment](p. 518) object

Required: No

**TrainingJob**

A TrainingJob object that is returned as part of a Search request.

Type: [TrainingJob](p. 694) object

Required: No

**Trial**

A summary of the properties of a trial.

Type: [Trial](p. 722) object

Required: No

**TrialComponent**

A summary of the properties of a trial component.

Type: [TrialComponent](p. 724) object

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
SecondaryStatusTransition
Service: Amazon SageMaker Service

An array element of DescribeTrainingJob:SecondaryStatusTransitions (p. 235). It provides additional details about a status that the training job has transitioned through. A training job can be in one of several states, for example, starting, downloading, training, or uploading. Within each state, there are a number of intermediate states. For example, within the starting state, Amazon SageMaker could be starting the training job or launching the ML instances. These transitional states are referred to as the job's secondary status.

Contents

EndTime
A timestamp that shows when the training job transitioned out of this secondary status state into another secondary status state or when the training job has ended.
Type: Timestamp
Required: No

StartTime
A timestamp that shows when the training job transitioned to the current secondary status state.
Type: Timestamp
Required: Yes

Status
Contains a secondary status information from a training job.

Status might be one of the following secondary statuses:

InProgress
- Starting - Starting the training job.
- Downloading - An optional stage for algorithms that support File training input mode. It indicates that data is being downloaded to the ML storage volumes.
- Training - Training is in progress.
- Uploading - Training is complete and the model artifacts are being uploaded to the S3 location.

Completed
- Completed - The training job has completed.

Failed
- Failed - The training job has failed. The reason for the failure is returned in the FailureReason field of DescribeTrainingJobResponse.

Stopped
- MaxRuntimeExceeded - The job stopped because it exceeded the maximum allowed runtime.
- Stopped - The training job has stopped.

Stopping
- Stopping - Stopping the training job.

We no longer support the following secondary statuses:
- LaunchingMLInstances
• PreparingTrainingStack
• DownloadingTrainingImage

Type: String

Valid Values: Starting | LaunchingMLInstances | PreparingTrainingStack | Downloading | DownloadingTrainingImage | Training | Uploading | Stopping | Stopped | MaxRuntimeExceeded | Completed | Failed | Interrupted | MaxWaitTimeExceeded

Required: Yes

StatusMessage

A detailed description of the progress within a secondary status.

Amazon SageMaker provides secondary statuses and status messages that apply to each of them:

Starting
• Starting the training job.
• Launching requested ML instances.
• Insufficient capacity error from EC2 while launching instances, retrying!
• Launched instance was unhealthy, replacing it!
• Preparing the instances for training.

Training
• Downloading the training image.
• Training image download completed. Training in progress.

Important
Status messages are subject to change. Therefore, we recommend not including them in code that programmatically initiates actions. For examples, don't use status messages in if statements.

To have an overview of your training job's progress, view TrainingJobStatus and SecondaryStatus in DescribeTrainingJob (p. 229), and StatusMessage together. For example, at the start of a training job, you might see the following:

• TrainingJobStatus - InProgress
• SecondaryStatus - Training
• StatusMessage - Downloading the training image

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for Ruby V3
SharingSettings
Service: Amazon SageMaker Service

The sharing settings.

Contents

NotebookOutputOption
The notebook output option.
Type: String
Valid Values: Allowed | Disabled
Required: No

S3KmsKeyId
The AWS Key Management Service encryption key ID.
Type: String
Length Constraints: Maximum length of 2048.
Pattern: .*
Required: No

S3OutputPath
The Amazon S3 output path.
Type: String
Length Constraints: Maximum length of 1024.
Pattern: ^(https|s3)://([^/]+)/(.*)$
Required: No

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ShuffleConfig
Service: Amazon SageMaker Service

A configuration for a shuffle option for input data in a channel. If you use `S3Prefix` for `S3DataType`, the results of the S3 key prefix matches are shuffled. If you use `ManifestFile`, the order of the S3 object references in the `ManifestFile` is shuffled. If you use `AugmentedManifestFile`, the order of the JSON lines in the `AugmentedManifestFile` is shuffled. The shuffling order is determined using the `Seed` value.

For Pipe input mode, when `ShuffleConfig` is specified shuffling is done at the start of every epoch. With large datasets, this ensures that the order of the training data is different for each epoch, and it helps reduce bias and possible overfitting. In a multi-node training job when `ShuffleConfig` is combined with `S3DataDistributionType` of `ShardedByS3Key`, the data is shuffled across nodes so that the content sent to a particular node on the first epoch might be sent to a different node on the second epoch.

Contents

Seed

- Determines the shuffling order in `ShuffleConfig` value.

  - Type: Long
  - Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
SourceAlgorithm

Service: Amazon SageMaker Service

Specifies an algorithm that was used to create the model package. The algorithm must be either an algorithm resource in your Amazon SageMaker account or an algorithm in AWS Marketplace that you are subscribed to.

Contents

AlgorithmName

The name of an algorithm that was used to create the model package. The algorithm must be either an algorithm resource in your Amazon SageMaker account or an algorithm in AWS Marketplace that you are subscribed to.

Type: String


Pattern: (arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:\[a-zA-Z\-]{0,62}[^\-])?([a-zA-Z0-9\-]{0,62})\(?<!\-\)$

Required: Yes

ModelDataUrl

The Amazon S3 path where the model artifacts, which result from model training, are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^/\s]+)[/]\?[^\s]+\$ (\s|\w+$)

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
SourceAlgorithmSpecification
Service: Amazon SageMaker Service
A list of algorithms that were used to create a model package.

Contents

SourceAlgorithms
A list of the algorithms that were used to create a model package.

Type: Array of SourceAlgorithm (p. 684) objects

Array Members: Fixed number of 1 item.

Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
SourceIpConfig

Service: Amazon SageMaker Service

A list of IP address ranges (CIDRs). Used to create an allow list of IP addresses for a private workforce. For more information, see UpdateWorkforce (p. 425).

Contents

Cidrs

A list of one to four Classless Inter-Domain Routing (CIDR) values.

Maximum: Four CIDR values

Note

The following Length Constraints apply to individual CIDR values in the CIDR value list.

Type: Array of strings

Length Constraints: Minimum length of 4. Maximum length of 64.


Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
StoppingCondition

Service: Amazon SageMaker Service

Specifies a limit to how long a model training or compilation job can run. It also specifies how long you are willing to wait for a managed spot training job to complete. When the job reaches the time limit, Amazon SageMaker ends the training or compilation job. Use this API to cap model training costs.

To stop a job, Amazon SageMaker sends the algorithm the \texttt{SIGTERM} signal, which delays job termination for 120 seconds. Algorithms can use this 120-second window to save the model artifacts, so the results of training are not lost.

The training algorithms provided by Amazon SageMaker automatically save the intermediate results of a model training job when possible. This attempt to save artifacts is only a best effort case as model might not be in a state from which it can be saved. For example, if training has just started, the model might not be ready to save. When saved, this intermediate data is a valid model artifact. You can use it to create a model with \texttt{CreateModel}.

\textbf{Note}

The Neural Topic Model (NTM) currently does not support saving intermediate model artifacts. When training NTMs, make sure that the maximum runtime is sufficient for the training job to complete.

Contents

\begin{description}
\item[MaxRuntimeInSeconds] The maximum length of time, in seconds, that the training or compilation job can run. If job does not complete during this time, Amazon SageMaker ends the job. If value is not specified, default value is 1 day. The maximum value is 28 days.
\item[MaxWaitTimeInSeconds] The maximum length of time, in seconds, how long you are willing to wait for a managed spot training job to complete. It is the amount of time spent waiting for Spot capacity plus the amount of time the training job runs. It must be equal to or greater than \texttt{MaxRuntimeInSeconds}.
\end{description}

\textbf{See Also}

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
SubscribedWorkteam

Service: Amazon SageMaker Service

Describes a work team of a vendor that does the a labelling job.

Contents

ListingId

Type: String

Required: No

MarketplaceDescription

The description of the vendor from the Amazon Marketplace.

Type: String


Pattern: .+

Required: No

MarketplaceTitle

The title of the service provided by the vendor in the Amazon Marketplace.

Type: String


Pattern: .+

Required: No

SellerName

The name of the vendor in the Amazon Marketplace.

Type: String

Required: No

WorkteamArn

The Amazon Resource Name (ARN) of the vendor that you have subscribed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:workteam/.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
SuggestionQuery
Service: Amazon SageMaker Service

Specified in the GetSearchSuggestions (p. 260) request. Limits the property names that are included in the response.

Contents

PropertyNameQuery

Defines a property name hint. Only property names that begin with the specified hint are included in the response.

Type: PropertyNameQuery (p. 661) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Tag

Service: Amazon SageMaker Service

Describes a tag.

Contents

Key

The tag key.

Type: String


Pattern: ^([\p{L}\p{Z}\p{N}_.:/=+-@]*)$

Required: Yes

Value

The tag value.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: ^([\p{L}\p{Z}\p{N}_.:/=+-@]*)$

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TensorBoardAppSettings
Service: Amazon SageMaker Service
The TensorBoard app settings.

Contents

DefaultResourceSpec
The instance type and quantity.
Type: ResourceSpec (p. 672) object
Required: No

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TensorBoardOutputConfig

Service: Amazon SageMaker Service

Configuration of storage locations for TensorBoard output.

Contents

LocalPath

Path to local storage location for tensorBoard output. Defaults to /opt/ml/output/tensorboard.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: .*

Required: No

S3OutputPath

Path to Amazon S3 storage location for TensorBoard output.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://(\[^/]+)/?(.*)$

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TrainingJob
Service: Amazon SageMaker Service
Contains information about a training job.

Contents

AlgorithmSpecification
Information about the algorithm used for training, and algorithm metadata.
Type: AlgorithmSpecification (p. 444) object
Required: No

AutoMLJobArn
The Amazon Resource Name (ARN) of the job.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 256.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:automl-job/.*
Required: No

BillableTimeInSeconds
The billable time in seconds.
Type: Integer
Valid Range: Minimum value of 1.
Required: No

CheckpointConfig
Contains information about the output location for managed spot training checkpoint data.
Type: CheckpointConfig (p. 485) object
Required: No

CreationTime
A timestamp that indicates when the training job was created.
Type: Timestamp
Required: No

DebugHookConfig
Configuration information for the debug hook parameters, collection configuration, and storage paths.
Type: DebugHookConfig (p. 503) object
Required: No

DebugRuleConfigurations
Information about the debug rule configuration.
TrainingJob

Type: Array of DebugRuleConfiguration (p. 505) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

DebugRuleEvaluationStatuses

Information about the evaluation status of the rules for the training job.

Type: Array of DebugRuleEvaluationStatus (p. 507) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

EnableInterContainerTrafficEncryption

To encrypt all communications between ML compute instances in distributed training, choose True. Encryption provides greater security for distributed training, but training might take longer. How long it takes depends on the amount of communication between compute instances, especially if you use a deep learning algorithm in distributed training.

Type: Boolean

Required: No

EnableManagedSpotTraining

When true, enables managed spot training using Amazon EC2 Spot instances to run training jobs instead of on-demand instances. For more information, see Managed Spot Training.

Type: Boolean

Required: No

EnableNetworkIsolation

If the TrainingJob was created with network isolation, the value is set to true. If network isolation is enabled, nodes can't communicate beyond the VPC they run in.

Type: Boolean

Required: No

ExperimentConfig

Configuration for the experiment.

Type: ExperimentConfig (p. 520) object

Required: No

FailureReason

If the training job failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

FinalMetricDataList

A list of final metric values that are set when the training job completes. Used only if the training job was configured to use metrics.
Type: Array of MetricData (p. 597) objects
Array Members: Minimum number of 0 items. Maximum number of 40 items.
Required: No

HyperParameters
Algorithm-specific parameters.
Type: String to string map
Key Length Constraints: Maximum length of 256.
Key Pattern: .*
Value Length Constraints: Maximum length of 256.
Value Pattern: .*
Required: No

InputDataConfig
An array of Channel objects that describes each data input channel.
Type: Array of Channel (p. 481) objects
Array Members: Minimum number of 1 item. Maximum number of 20 items.
Required: No

LabelingJobArn
The Amazon Resource Name (ARN) of the labeling job.
Type: String
Length Constraints: Maximum length of 2048.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:labeling-job/.*
Required: No

LastModifiedTime
A timestamp that indicates when the status of the training job was last modified.
Type: Timestamp
Required: No

ModelArtifacts
Information about the Amazon S3 location that is configured for storing model artifacts.
Type: ModelArtifacts (p. 599) object
Required: No

OutputDataConfig
The S3 path where model artifacts that you configured when creating the job are stored. Amazon SageMaker creates subfolders for model artifacts.
Type: OutputDataConfig (p. 639) object
Required: No

**ResourceConfig**

Resources, including ML compute instances and ML storage volumes, that are configured for model training.

Type: ResourceConfig (p. 669) object

Required: No

**RoleArn**

The AWS Identity and Access Management (IAM) role configured for the training job.

Type: String


Pattern: ^arn:aws[a-z\-]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@\-_\/]+$

Required: No

**SecondaryStatus**

Provides detailed information about the state of the training job. For detailed information about the secondary status of the training job, see StatusMessage under SecondaryStatusTransition (p. 680).

Amazon SageMaker provides primary statuses and secondary statuses that apply to each of them:

**InProgress**
- Starting - Starting the training job.
- Downloading - An optional stage for algorithms that support File training input mode. It indicates that data is being downloaded to the ML storage volumes.
- Training - Training is in progress.
- Uploading - Training is complete and the model artifacts are being uploaded to the S3 location.

**Completed**
- Completed - The training job has completed.

**Failed**
- Failed - The training job has failed. The reason for the failure is returned in the FailureReason field of DescribeTrainingJobResponse.

**Stopped**
- MaxRuntimeExceeded - The job stopped because it exceeded the maximum allowed runtime.
- Stopped - The training job has stopped.

**Stopping**
- Stopping - Stopping the training job.

**Important**

Valid values for SecondaryStatus are subject to change.

We no longer support the following secondary statuses:
- LaunchingMLInstances
- PreparingTrainingStack
- DownloadingTrainingImage

Type: String
Valid Values: Starting | LaunchingMLInstances | PreparingTrainingStack | Downloading | DownloadingTrainingImage | Training | Uploading | Stopping | Stopped | MaxRuntimeExceeded | Completed | Failed | Interrupted | MaxWaitTimeExceeded

Required: No

**SecondaryStatusTransitions**

A history of all of the secondary statuses that the training job has transitioned through.

Type: Array of SecondaryStatusTransition (p. 680) objects

Required: No

**StoppingCondition**

Specifies a limit to how long a model training job can run. When the job reaches the time limit, Amazon SageMaker ends the training job. Use this API to cap model training costs.

To stop a job, Amazon SageMaker sends the algorithm the `SIGTERM` signal, which delays job termination for 120 seconds. Algorithms can use this 120-second window to save the model artifacts, so the results of training are not lost.

Type: StoppingCondition (p. 687) object

Required: No

**Tags**

An array of key-value pairs. For more information, see Using Cost Allocation Tags in the AWS Billing and Cost Management User Guide.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

**TensorBoardOutputConfig**

Configuration of storage locations for TensorBoard output.

Type: TensorBoardOutputConfig (p. 693) object

Required: No

**TrainingEndTime**

Indicates the time when the training job ends on training instances. You are billed for the time interval between the value of `TrainingStartTime` and this time. For successful jobs and stopped jobs, this is the time after model artifacts are uploaded. For failed jobs, this is the time when Amazon SageMaker detects a job failure.

Type: Timestamp

Required: No

**TrainingJobArn**

The Amazon Resource Name (ARN) of the training job.

Type: String

Length Constraints: Maximum length of 256.
TrainingJob

**Pattern:** `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:training-job/.*`

**Required:** No

**TrainingJobName**

The name of the training job.

**Type:** String

**Length Constraints:** Minimum length of 1. Maximum length of 63.

**Pattern:** `^[a-zA-Z0-9](-*[a-zA-Z0-9])*` (Minimum length of 1. Maximum length of 63)

**Required:** No

**TrainingJobStatus**

The status of the training job.

Training job statuses are:
- **InProgress** - The training is in progress.
- **Completed** - The training job has completed.
- **Failed** - The training job has failed. To see the reason for the failure, see the `FailureReason` field in the response to a `DescribeTrainingJobResponse` call.
- **Stopping** - The training job is stopping.
- **Stopped** - The training job has stopped.

For more detailed information, see `SecondaryStatus`.

**Type:** String

**Valid Values:** InProgress | Completed | Failed | Stopping | Stopped

**Required:** No

**TrainingStartTime**

Indicates the time when the training job starts on training instances. You are billed for the time interval between this time and the value of `TrainingEndTime`. The start time in CloudWatch Logs might be later than this time. The difference is due to the time it takes to download the training data and to the size of the training container.

**Type:** Timestamp

**Required:** No

**TrainingTimeInSeconds**

The training time in seconds.

**Type:** Integer

**Valid Range:** Minimum value of 1.

**Required:** No

**TuningJobArn**

The Amazon Resource Name (ARN) of the associated hyperparameter tuning job if the training job was launched by a hyperparameter tuning job.

**Type:** String
Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:hyper-parameter-tuning-job/.*`

Required: No

**VpcConfig**

A `VpcConfig (p. 752)` object that specifies the VPC that this training job has access to. For more information, see [Protect Training Jobs by Using an Amazon Virtual Private Cloud](#).

Type: `VpcConfig (p. 752)` object

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TrainingJobDefinition
Service: Amazon SageMaker Service
Defines the input needed to run a training job using the algorithm.

Contents

HyperParameters
The hyperparameters used for the training job.
Type: String to string map
Key Length Constraints: Maximum length of 256.
Key Pattern: .*
Value Length Constraints: Maximum length of 256.
Value Pattern: .*
Required: No

InputDataConfig
An array of Channel objects, each of which specifies an input source.
Type: Array of Channel (p. 481) objects
Array Members: Minimum number of 1 item. Maximum number of 20 items.
Required: Yes

OutputDataConfig
the path to the S3 bucket where you want to store model artifacts. Amazon SageMaker creates subfolders for the artifacts.
Type: OutputDataConfig (p. 639) object
Required: Yes

ResourceConfig
The resources, including the ML compute instances and ML storage volumes, to use for model training.
Type: ResourceConfig (p. 669) object
Required: Yes

StoppingCondition
Specifies a limit to how long a model training job can run. When the job reaches the time limit, Amazon SageMaker ends the training job. Use this API to cap model training costs.
To stop a job, Amazon SageMaker sends the algorithm the SIGTERM signal, which delays job termination for 120 seconds. Algorithms can use this 120-second window to save the model artifacts.
Type: StoppingCondition (p. 687) object
Required: Yes
TrainingInputMode

The input mode used by the algorithm for the training job. For the input modes that Amazon SageMaker algorithms support, see Algorithms.

If an algorithm supports the File input mode, Amazon SageMaker downloads the training data from S3 to the provisioned ML storage Volume, and mounts the directory to docker volume for training container. If an algorithm supports the Pipe input mode, Amazon SageMaker streams data directly from S3 to the container.

Type: String

Valid Values: Pipe | File

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TrainingJobStatusCounters
Service: Amazon SageMaker Service

The numbers of training jobs launched by a hyperparameter tuning job, categorized by status.

Contents

Completed
The number of completed training jobs launched by the hyperparameter tuning job.
Type: Integer
Valid Range: Minimum value of 0.
Required: No

InProgress
The number of in-progress training jobs launched by a hyperparameter tuning job.
Type: Integer
Valid Range: Minimum value of 0.
Required: No

NonRetryableError
The number of training jobs that failed and can't be retried. A failed training job can't be retried if it failed because a client error occurred.
Type: Integer
Valid Range: Minimum value of 0.
Required: No

RetryableError
The number of training jobs that failed, but can be retried. A failed training job can be retried only if it failed because an internal service error occurred.
Type: Integer
Valid Range: Minimum value of 0.
Required: No

Stopped
The number of training jobs launched by a hyperparameter tuning job that were manually stopped.
Type: Integer
Valid Range: Minimum value of 0.
Required: No

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TrainingJobSummary
Service: Amazon SageMaker Service

Provides summary information about a training job.

Contents

CreationTime
A timestamp that shows when the training job was created.
Type: Timestamp
Required: Yes

LastModifiedTime
Timestamp when the training job was last modified.
Type: Timestamp
Required: No

TrainingEndTime
A timestamp that shows when the training job ended. This field is set only if the training job has one of the terminal statuses (Completed, Failed, or Stopped).
Type: Timestamp
Required: No

TrainingJobArn
The Amazon Resource Name (ARN) of the training job.
Type: String
Length Constraints: Maximum length of 256.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:training-job/.*
Required: Yes

TrainingJobName
The name of the training job that you want a summary for.
Type: String
Pattern: ^[a-zA-Z0-9-]*[a-zA-Z0-9]*$*
Required: Yes

TrainingJobStatus
The status of the training job.
Type: String
Valid Values: InProgress | Completed | Failed | Stopping | Stopped
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TrainingSpecification

Service: Amazon SageMaker Service

Defines how the algorithm is used for a training job.

Contents

MetricDefinitions

A list of MetricDefinition objects, which are used for parsing metrics generated by the algorithm.

Type: Array of MetricDefinition (p. 598) objects

Array Members: Minimum number of 0 items. Maximum number of 40 items.

Required: No

SupportedHyperParameters

A list of the HyperParameterSpecification objects, that define the supported hyperparameters. This is required if the algorithm supports automatic model tuning.

Type: Array of HyperParameterSpecification (p. 554) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Required: No

SupportedTrainingInstanceTypes

A list of the instance types that this algorithm can use for training.

Type: Array of strings

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge

Required: Yes

SupportedTuningJobObjectiveMetrics

A list of the metrics that the algorithm emits that can be used as the objective metric in a hyperparameter tuning job.

Type: Array of HyperParameterTuningJobObjective (p. 564) objects

Required: No

SupportsDistributedTraining

Indicates whether the algorithm supports distributed training. If set to false, buyers can't request more than one instance during training.

Type: Boolean
TrainingChannels

A list of ChannelSpecification objects, which specify the input sources to be used by the algorithm.

Type: Array of ChannelSpecification (p. 483) objects

Array Members: Minimum number of 1 item. Maximum number of 8 items.

Required: Yes

TrainingImage

The Amazon ECR registry path of the Docker image that contains the training algorithm.

Type: String

Length Constraints: Maximum length of 255.

Pattern: \S+

Required: Yes

TrainingImageDigest

An MD5 hash of the training algorithm that identifies the Docker image used for training.

Type: String

Length Constraints: Maximum length of 72.

Pattern: ^[Ss][Hh][Aa]256:[0-9a-fA-F]{64}$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TransformDataSource
Service: Amazon SageMaker Service
Describes the location of the channel data.

Contents

S3DataSource
The S3 location of the data source that is associated with a channel.
Type: TransformS3DataSource (p. 720) object
Required: Yes

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**TransformInput**

Service: Amazon SageMaker Service

Describes the input source of a transform job and the way the transform job consumes it.

**Contents**

**CompressionType**

If your transform data is compressed, specify the compression type. Amazon SageMaker automatically decompresses the data for the transform job accordingly. The default value is **None**.

*Type:* String

*Valid Values:* None | Gzip

*Required:* No

**ContentType**

The multipurpose internet mail extension (MIME) type of the data. Amazon SageMaker uses the MIME type with each http call to transfer data to the transform job.

*Type:* String

*Length Constraints:* Maximum length of 256.

*Pattern:* .*

*Required:* No

**DataSource**

Describes the location of the channel data, which is, the S3 location of the input data that the model can consume.

*Type:* TransformDataSource (p. 709) object

*Required:* Yes

**SplitType**

The method to use to split the transform job's data files into smaller batches. Splitting is necessary when the total size of each object is too large to fit in a single request. You can also use data splitting to improve performance by processing multiple concurrent mini-batches. The default value for **SplitType** is **None**, which indicates that input data files are not split, and request payloads contain the entire contents of an input object. Set the value of this parameter to **Line** to split records on a newline character boundary. **SplitType** also supports a number of record-oriented binary data formats.

When splitting is enabled, the size of a mini-batch depends on the values of the **BatchStrategy** and **MaxPayloadInMB** parameters. When the value of **BatchStrategy** is **MultiRecord**, Amazon SageMaker sends the maximum number of records in each request, up to the **MaxPayloadInMB** limit. If the value of **BatchStrategy** is **SingleRecord**, Amazon SageMaker sends individual records in each request.

**Note**

Some data formats represent a record as a binary payload wrapped with extra padding bytes. When splitting is applied to a binary data format, padding is removed if the value of **BatchStrategy** is set to **SingleRecord**. Padding is not removed if the value of **BatchStrategy** is set to **MultiRecord**.
For more information about RecordIO, see Create a Dataset Using RecordIO in the MXNet documentation. For more information about TFRecord, see Consuming TFRecord data in the TensorFlow documentation.

Type: String

Valid Values: None | Line | RecordIO | TFRecord

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**TransformJobDefinition**

Service: Amazon SageMaker Service

Defines the input needed to run a transform job using the inference specification specified in the algorithm.

**Contents**

**BatchStrategy**

A string that determines the number of records included in a single mini-batch.

*SingleRecord* means only one record is used per mini-batch. *MultiRecord* means a mini-batch is set to contain as many records that can fit within the *MaxPayloadInMB* limit.

Type: String

Valid Values: MultiRecord | SingleRecord

Required: No

**Environment**

The environment variables to set in the Docker container. We support up to 16 key and values entries in the map.

Type: String to string map

Key Length Constraints: Maximum length of 1024.

Key Pattern: [a-zA-Z_][a-zA-Z0-9_]*

Value Length Constraints: Maximum length of 10240.

Value Pattern: [\S\s]*

Required: No

**MaxConcurrentTransforms**

The maximum number of parallel requests that can be sent to each instance in a transform job. The default value is 1.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

**MaxPayloadInMB**

The maximum payload size allowed, in MB. A payload is the data portion of a record (without metadata).

Type: Integer

Valid Range: Minimum value of 0.

Required: No

**TransformInput**

A description of the input source and the way the transform job consumes it.
Type: TransformInput (p. 710) object
Required: Yes

**TransformOutput**

Identifies the Amazon S3 location where you want Amazon SageMaker to save the results from the transform job.

Type: TransformOutput (p. 716) object
Required: Yes

**TransformResources**

Identifies the ML compute instances for the transform job.

Type: TransformResources (p. 718) object
Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TransformJobSummary

Service: Amazon SageMaker Service

Provides a summary of a transform job. Multiple TransformJobSummary objects are returned as a list after in response to a ListTransformJobs (p. 345) call.

Contents

CreationTime

A timestamp that shows when the transform Job was created.

Type: Timestamp

Required: Yes

FailureReason

If the transform job failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

LastModifiedTime

Indicates when the transform job was last modified.

Type: Timestamp

Required: No

TransformEndTime

Indicates when the transform job ends on compute instances. For successful jobs and stopped jobs, this is the exact time recorded after the results are uploaded. For failed jobs, this is when Amazon SageMaker detected that the job failed.

Type: Timestamp

Required: No

TransformJobArn

The Amazon Resource Name (ARN) of the transform job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:transform-job/.*

Required: Yes

TransformJobName

The name of the transform job.

Type: String

Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  
Required: Yes

**TransformJobStatus**

The status of the transform job.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TransformOutput

Service: Amazon SageMaker Service

Describes the results of a transform job.

Contents

Accept

The MIME type used to specify the output data. Amazon SageMaker uses the MIME type with each http call to transfer data from the transform job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: . *

Required: No

AssembleWith

Defines how to assemble the results of the transform job as a single S3 object. Choose a format that is most convenient to you. To concatenate the results in binary format, specify None. To add a newline character at the end of every transformed record, specify Line.

Type: String

Valid Values: None | Line

Required: No

KmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt the model artifacts at rest using Amazon S3 server-side encryption. The KmsKeyId can be any of the following formats:

- Key ID: 1234abcd-12ab-34cd-56ef-1234567890ab
- Key ARN: arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab
- Alias name: alias/ExampleAlias

If you don't provide a KMS key ID, Amazon SageMaker uses the default KMS key for Amazon S3 for your role's account. For more information, see KMS-Managed Encryption Keys in the Amazon Simple Storage Service Developer Guide.

The KMS key policy must grant permission to the IAM role that you specify in your CreateModel (p. 61) request. For more information, see Using Key Policies in AWS KMS in the AWS Key Management Service Developer Guide.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: . *

Required: No
S3OutputPath

The Amazon S3 path where you want Amazon SageMaker to store the results of the transform job. For example, s3://bucket-name/key-name-prefix.

For every S3 object used as input for the transform job, batch transform stores the transformed data with an .out suffix in a corresponding subfolder in the location in the output prefix. For example, for the input data stored at s3://bucket-name/input-name-prefix/dataset01/data.csv, batch transform stores the transformed data at s3://bucket-name/output-name-prefix/input-name-prefix/data.csv.out. Batch transform doesn't upload partially processed objects. For an input S3 object that contains multiple records, it creates an .out file only if the transform job succeeds on the entire file. When the input contains multiple S3 objects, the batch transform job processes the listed S3 objects and uploads only the output for successfully processed objects. If any object fails in the transform job batch transform marks the job as failed to prompt investigation.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^((https|s3)://([^/]+)?(/.*))$

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TransformResources
Service: Amazon SageMaker Service

Describes the resources, including ML instance types and ML instance count, to use for transform job.

Contents

InstanceCount

The number of ML compute instances to use in the transform job. For distributed transform jobs, specify a value greater than 1. The default value is 1.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

InstanceType

The ML compute instance type for the transform job. If you are using built-in algorithms to transform moderately sized datasets, we recommend using ml.m4.xlarge or ml.m5.large instance types.

Type: String

Valid Values:
- ml.m4.xlarge
- ml.m4.2xlarge
- ml.m4.4xlarge
- ml.m4.10xlarge
- ml.m4.16xlarge
- ml.m4.2xlarge
- ml.m4.8xlarge
- ml.m4.4xlarge
- ml.m4.10xlarge
- ml.m4.16xlarge
- ml.c4.xlarge
- ml.c4.2xlarge
- ml.c4.4xlarge
- ml.c4.8xlarge
- ml.p2.xlarge
- ml.p2.8xlarge
- ml.p2.16xlarge
- ml.p3.2xlarge
- ml.p3.8xlarge
- ml.p3.16xlarge
- ml.p3.2xlarge
- ml.p3.8xlarge
- ml.p3.16xlarge
- ml.p4.large
- ml.p4.2xlarge
- ml.p4.8xlarge
- ml.p4.10xlarge
- ml.p4.16xlarge
- ml.c5.xlarge
- ml.c5.2xlarge
- ml.c5.4xlarge
- ml.c5.9xlarge
- ml.c5.18xlarge
- ml.m5.large
- ml.m5.xlarge
- ml.m5.2xlarge
- ml.m5.4xlarge
- ml.m5.10xlarge
- ml.m5.20xlarge
- ml.m5.24xlarge

Required: Yes

VolumeKmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt model data on the storage volume attached to the ML compute instance(s) that run the batch transform job. The VolumeKmsKeyId can be any of the following formats:

- Key ID: 1234abcd-12ab-34cd-56ef-1234567890ab
- Key ARN: arn:aws:kms:us-west-2:11112223333:key/1234abcd-12ab-34cd-56ef-1234567890ab
- Alias name: alias/ExampleAlias

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TransformS3DataSource
Service: Amazon SageMaker Service

Describes the S3 data source.

Contents

S3DataType

If you choose S3Prefix, S3Uri identifies a key name prefix. Amazon SageMaker uses all objects with the specified key name prefix for batch transform.

If you choose ManifestFile, S3Uri identifies an object that is a manifest file containing a list of object keys that you want Amazon SageMaker to use for batch transform.

The following values are compatible: ManifestFile, S3Prefix

The following value is not compatible: AugmentedManifestFile

Type: String

Valid Values: ManifestFile | S3Prefix | AugmentedManifestFile

Required: Yes

S3Uri

Depending on the value specified for the S3DataType, identifies either a key name prefix or a manifest. For example:

- A key name prefix might look like this: s3://bucketname/exampleprefix.
- A manifest might look like this: s3://bucketname/example.manifest

The manifest is an S3 object which is a JSON file with the following format:

```json
[ { "prefix": "s3://customer_bucket/some/prefix/"},
  "relative/path/to/custdata-1",
  "relative/path/custdata-2",
  ...
  "relative/path/custdata-N"
]
```

The preceding JSON matches the following s3Uris:

- s3://customer_bucket/some/prefix/relative/path/to/custdata-1
- s3://customer_bucket/some/prefix/relative/path/to/custdata-2
- ...
- s3://customer_bucket/some/prefix/relative/path/to/custdata-N

The complete set of S3Uris in this manifest constitutes the input data for the channel for this datasource. The object that each S3Uri points to must be readable by the IAM role that Amazon SageMaker uses to perform tasks on your behalf.

Type: String
Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([\^/]*)/\?(.*)$`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Trial
Service: Amazon SageMaker Service

A summary of the properties of a trial as returned by the Search (p. 363) API.

Contents

CreatedBy
Information about the user who created or modified an experiment, trial, or trial component.
Type: UserContext (p. 746) object
Required: No

CreationTime
When the trial was created.
Type: Timestamp
Required: No

DisplayName
The name of the trial as displayed. If DisplayName isn't specified, TrialName is displayed.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  
Required: No

ExperimentName
The name of the experiment the trial is part of.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  
Required: No

LastModifiedBy
Information about the user who created or modified an experiment, trial, or trial component.
Type: UserContext (p. 746) object
Required: No

LastModifiedTime
Who last modified the trial.
Type: Timestamp
Required: No

Source
The source of the trial.
**Trial Source**

Type: TrialSource (p. 738) object

Required: No

**Tags**

The list of tags that are associated with the trial. You can use Search (p. 363) API to search on the tags.

Type: Array of Tag (p. 691) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

**Trial Arn**

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[\w\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial/.*`

Required: No

**Trial Component Summaries**

A list of the components associated with the trial. For each component, a summary of the component's properties is included.

Type: Array of TrialComponentSimpleSummary (p. 731) objects

Required: No

**Trial Name**

The name of the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[\w\-]*([\w\-])*$`

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
### TrialComponent

**Service:** Amazon SageMaker Service

A summary of the properties of a trial component as returned by the Search (p. 363) API.

#### Contents

- **CreatedBy**
  - Information about the user who created or modified an experiment, trial, or trial component.
  - **Type:** UserContext (p. 746) object
  - **Required:** No

- **CreationTime**
  - When the component was created.
  - **Type:** Timestamp
  - **Required:** No

- **DisplayName**
  - The name of the component as displayed. If **DisplayName** isn't specified, **TrialComponentName** is displayed.
  - **Type:** String
  - **Length Constraints:** Minimum length of 1. Maximum length of 82.
  - **Pattern:** ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  
  - **Required:** No

- **EndTime**
  - When the component ended.
  - **Type:** Timestamp
  - **Required:** No

- **InputArtifacts**
  - The input artifacts of the component.
  - **Type:** String to TrialComponentArtifact (p. 727) object map
  - **Key Length Constraints:** Maximum length of 64.
  - **Key Pattern:** .*  
  - **Required:** No

- **LastModifiedBy**
  - Information about the user who created or modified an experiment, trial, or trial component.
  - **Type:** UserContext (p. 746) object
  - **Required:** No
LastModifiedTime

When the component was last modified.
Type: Timestamp
Required: No

Metrics

The metrics for the component.
Type: Array of TrialComponentMetricSummary (p. 728) objects
Required: No

OutputArtifacts

The output artifacts of the component.
Type: String to TrialComponentArtifact (p. 727) object map
Key Length Constraints: Maximum length of 64.
Key Pattern: . *
Required: No

Parameters

The hyperparameters of the component.
Type: String to TrialComponentParameterValue (p. 730) object map
Key Length Constraints: Maximum length of 256.
Key Pattern: . *
Required: No

Parents

An array of the parents of the component. A parent is a trial the component is associated with and the experiment the trial is part of. A component might not have any parents.
Type: Array of Parent (p. 643) objects
Required: No

Source

The source of the trial component.
Type: TrialComponentSource (p. 733) object
Required: No

SourceDetail

The source of the trial component.
Type: TrialComponentSourceDetail (p. 734) object
Required: No

StartTime

When the component started.
TrialComponent

Type: TrialComponentStatus (p. 735) object
Required: No

Tags

The list of tags that are associated with the component. You can use Search (p. 363) API to search on the tags.

Type: Array of Tag (p. 691) objects
Array Members: Minimum number of 0 items. Maximum number of 50 items.
Required: No

TrialComponentArn

The Amazon Resource Name (ARN) of the trial component.

Type: String
Length Constraints: Maximum length of 256.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]\{12\}:experiment-trial-component/.*
Required: No

TrialComponentName

The name of the trial component.

Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9-]*(-*[a-zA-Z0-9])*$*
Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TrialComponentArtifact

Service: Amazon SageMaker Service

Represents an input or output artifact of a trial component. You specify TrialComponentArtifact as part of the InputArtifacts and OutputArtifacts parameters in the CreateTrialComponent request.

Examples of input artifacts are datasets, algorithms, hyperparameters, source code, and instance types. Examples of output artifacts are metrics, snapshots, logs, and images.

Contents

MediaType

The media type of the artifact, which indicates the type of data in the artifact file. The media type consists of a type and a subtype concatenated with a slash (/) character, for example, text/csv, image/jpeg, and s3/uri. The type specifies the category of the media. The subtype specifies the kind of data.

Type: String
Length Constraints: Maximum length of 64.
Pattern: ^[\w]+/[^\w]+$
Required: No

Value

The location of the artifact.

Type: String
Length Constraints: Maximum length of 2048.
Pattern: .*
Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**TrialComponentMetricSummary**

Service: Amazon SageMaker Service

A summary of the metrics of a trial component.

**Contents**

- **Avg**
  - The average value of the metric.
  - Type: Double
  - Required: No

- **Count**
  - The number of samples used to generate the metric.
  - Type: Integer
  - Required: No

- **Last**
  - The most recent value of the metric.
  - Type: Double
  - Required: No

- **Max**
  - The maximum value of the metric.
  - Type: Double
  - Required: No

- **MetricName**
  - The name of the metric.
  - Type: String
  - Pattern: .+
  - Required: No

- **Min**
  - The minimum value of the metric.
  - Type: Double
  - Required: No

- **SourceArn**
  - The Amazon Resource Name (ARN) of the source.
  - Type: String
Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}::*

Required: No

**StdDev**

The standard deviation of the metric.

Type: Double

Required: No

**TimeStamp**

When the metric was last updated.

Type: Timestamp

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TrialComponentParameterValue

Service: Amazon SageMaker Service

The value of a hyperparameter. Only one of NumberValue or StringValue can be specified.

This object is specified in the CreateTrialComponent (p. 106) request.

Contents

**NumberValue**

The numeric value of a numeric hyperparameter. If you specify a value for this parameter, you can’t specify the StringValue parameter.

- Type: Double
- Required: No

**StringValue**

The string value of a categorical hyperparameter. If you specify a value for this parameter, you can’t specify the NumberValue parameter.

- Type: String
- Length Constraints: Maximum length of 256.
- Pattern: .*
- Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**TrialComponentSimpleSummary**

Service: Amazon SageMaker Service

A short summary of a trial component.

## Contents

**CreatedBy**

Information about the user who created or modified an experiment, trial, or trial component.

Type: `UserContext (p. 746)` object

Required: No

**CreationTime**

When the component was created.

Type: `Timestamp`

Required: No

**TrialComponentArn**

The Amazon Resource Name (ARN) of the trial component.

Type: `String`

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial-component/.*`

Required: No

**TrialComponentName**

The name of the trial component.

Type: `String`

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9\-]*(\*[a-zA-Z0-9\-])*$`

Required: No

**TrialComponentSource**

The source of the trial component.

Type: `TrialComponentSource (p. 733)` object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for Ruby V3
TrialComponentSource

Service: Amazon SageMaker Service

The source of the trial component.

Contents

SourceArn

The Amazon Resource Name (ARN) of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:.*

Required: Yes

SourceType

The source job type.

Type: String

Length Constraints: Maximum length of 128.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TrialComponentSourceDetail
Service: Amazon SageMaker Service

Detailed information about the source of a trial component.

Contents

SourceArn
The Amazon Resource Name (ARN) of the source.
Type: String
Length Constraints: Maximum length of 256.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:.*
Required: No

TrainingJob
Contains information about a training job.
Type: TrainingJob (p. 694) object
Required: No

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TrialComponentStatus

Service: Amazon SageMaker Service

The status of the trial component.

Contents

Message

If the component failed, a message describing why.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .*

Required: No

PrimaryStatus

The status of the trial component.

Type: String

Valid Values: InProgress | Completed | Failed

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TrialComponentSummary
Service: Amazon SageMaker Service

A summary of the properties of a trial component. To get all the properties, call the DescribeTrialComponent (p. 246) API and provide the TrialComponentName.

Contents

CreatedBy
Who created the component.
Type: UserContext (p. 746) object
Required: No

CreationTime
When the component was created.
Type: Timestamp
Required: No

DisplayName
The name of the component as displayed. If DisplayName isn't specified, TrialComponentName is displayed.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*
Required: No

EndTime
When the component ended.
Type: Timestamp
Required: No

LastModifiedBy
Who last modified the component.
Type: UserContext (p. 746) object
Required: No

LastModifiedTime
When the component was last modified.
Type: Timestamp
Required: No

StartTime
When the component started.
TrialComponentSummary

Type: Timestamp
Required: No

**Status**

The status of the component. States include:
- InProgress
- Completed
- Failed

Type: TrialComponentStatus (p. 735) object
Required: No

**TrialComponentArn**

The ARN of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial-component/.*`

Required: No

**TrialComponentName**

The name of the trial component.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9\-]*\*[a-zA-Z0-9\-]*\*[a-zA-Z0-9\-]*$`

Required: No

**TrialComponentSource**

The source of the trial component.

Type: TrialComponentSource (p. 733) object
Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**TrialSource**

Service: Amazon SageMaker Service

The source of the trial.

**Contents**

**SourceArn**

The Amazon Resource Name (ARN) of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-z0-9-]*:[0-9]{12}:.*`

Required: Yes

**SourceType**

The source job type.

Type: String

Length Constraints: Maximum length of 128.

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
**TrialSummary**
Service: Amazon SageMaker Service

A summary of the properties of a trial. To get the complete set of properties, call the DescribeTrial (p. 243) API and provide the TrialName.

**Contents**

**CreationTime**
When the trial was created.

Type: Timestamp
Required: No

**DisplayName**
The name of the trial as displayed. If DisplayName isn't specified, TrialName is displayed.

Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  
Required: No

**LastModifiedTime**
When the trial was last modified.

Type: Timestamp
Required: No

**TrialArn**
The Amazon Resource Name (ARN) of the trial.

Type: String
Length Constraints: Maximum length of 256.
Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial/.*  
Required: No

**TrialName**
The name of the trial.

Type: String
Length Constraints: Minimum length of 1. Maximum length of 82.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*  
Required: No

**TrialSource**
The source of the trial.
Type: **TrialSource (p. 738)** object

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TuningJobCompletionCriteria

Service: Amazon SageMaker Service

The job completion criteria.

Contents

TargetObjectiveMetricValue

The objective metric's value.

Type: Float

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
UiConfig

Service: Amazon SageMaker Service

Provided configuration information for the worker UI for a labeling job.

Contents

UiTemplateS3Uri

The Amazon S3 bucket location of the UI template. For more information about the contents of a UI template, see Creating Your Custom Labeling Task Template.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^/]+)/?([^/]+)$

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
UiTemplate
Service: Amazon SageMaker Service

The Liquid template for the worker user interface.

Contents

Content

The content of the Liquid template for the worker user interface.

Type: String


Pattern: \S\s+

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
UiTemplateInfo
Service: Amazon SageMaker Service

Container for user interface template information.

Contents

ContentSha256
The SHA-256 digest of the contents of the template.
Type: String
Required: No

Url
The URL for the user interface template.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 2048.
Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
USD

Service: Amazon SageMaker Service

Represents an amount of money in United States dollars/

Contents

Cents

The fractional portion, in cents, of the amount.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 99.

Required: No

Dollars

The whole number of dollars in the amount.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 2.

Required: No

TenthFractionsOfACent

Fractions of a cent, in tenths.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 9.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
UserContext
Service: Amazon SageMaker Service

Information about the user who created or modified an experiment, trial, or trial component.

Contents

DomainId
The domain associated with the user.
Type: String
Required: No

UserProfileArn
The Amazon Resource Name (ARN) of the user's profile.
Type: String
Required: No

UserProfileName
The name of the user's profile.
Type: String
Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
UserProfileDetails

Service: Amazon SageMaker Service

The user profile details.

Contents

**CreationTime**
The creation time.
Type: Timestamp
Required: No

**DomainId**
The domain ID.
Type: String
Length Constraints: Maximum length of 63.
Required: No

**LastModifiedTime**
The last modified time.
Type: Timestamp
Required: No

**Status**
The status.
Type: String
Valid Values: Deleting | Failed | InService | Pending
Required: No

**UserProfileName**
The user profile name.
Type: String
Length Constraints: Maximum length of 63.
Pattern: ^[a-zA-Z0-9](-*[a-zA-Z0-9])*^
Required: No

See Also
For more information about using this API in one of the language-specific AWS SDKs, see the following:
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
UserSettings
Service: Amazon SageMaker Service
A collection of settings.

Contents

**ExecutionRole**

The execution role for the user.

Type: String


Pattern: `arn:aws[a-z\-]*:iam::\d{12}:role/?[a-zA-Z\-0-9+=,.@\-_\s]+`+

Required: No

**JupyterServerAppSettings**

The Jupyter server's app settings.

Type: JupyterServerAppSettings (p. 576) object

Required: No

**KernelGatewayAppSettings**

The kernel gateway app settings.

Type: KernelGatewayAppSettings (p. 577) object

Required: No

**SecurityGroups**

The security groups.

Type: Array of strings

Array Members: Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: `[-\-09a-zA-Z]+`

Required: No

**SharingSettings**

The sharing settings.

Type: SharingSettings (p. 682) object

Required: No

**TensorBoardAppSettings**

The TensorBoard app settings.

Type: TensorBoardAppSettings (p. 692) object

Required: No
See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
VariantProperty
Service: Amazon SageMaker Service

Specifies a production variant property type for an Endpoint.

If you are updating an endpoint with the UpdateEndpoint:RetainAllVariantProperties (p. 401) option set to true, the VariantProperty objects listed in UpdateEndpoint:ExcludeRetainedVariantProperties (p. 401) override the existing variant properties of the endpoint.

Contents

VariantPropertyType

The type of variant property. The supported values are:

- DesiredInstanceCount: Overrides the existing variant instance counts using the ProductionVariant:InitialInstanceCount (p. 657) values in the CreateEndpointConfig:ProductionVariants (p. 39).
- DesiredWeight: Overrides the existing variant weights using the ProductionVariant:InitialVariantWeight (p. 657) values in the CreateEndpointConfig:ProductionVariants (p. 39).
- DataCaptureConfig: (Not currently supported.)

Type: String

Valid Values: DesiredInstanceCount | DesiredWeight | DataCaptureConfig

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
VpcConfig

Service: Amazon SageMaker Service

Specifies a VPC that your training jobs and hosted models have access to. Control access to and from your training and model containers by configuring the VPC. For more information, see Protect Endpoints by Using an Amazon Virtual Private Cloud and Protect Training Jobs by Using an Amazon Virtual Private Cloud.

Contents

SecurityGroupIds

The VPC security group IDs, in the form sg-xxxxxxxxx. Specify the security groups for the VPC that is specified in the Subnets field.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: Yes

Subnets

The ID of the subnets in the VPC to which you want to connect your training job or model. For information about the availability of specific instance types, see Supported Instance Types and Availability Zones.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Workforce

Service: Amazon SageMaker Service

A single private workforce, which is automatically created when you create your first private work team. You can create one private workforce in each AWS Region. By default, any workforce-related API operation used in a specific region will apply to the workforce created in that region. To learn how to create a private workforce, see Create a Private Workforce.

Contents

LastUpdatedDate

The most recent date that UpdateWorkforce (p. 425) was used to successfully add one or more IP address ranges (CIDRs) to a private workforce's allow list.

Type: Timestamp

Required: No

SourceIpConfig

A list of one to four IP address ranges (CIDRs) to be added to the workforce allow list.

Type: SourceIpConfig (p. 686) object

Required: No

WorkforceArn

The Amazon Resource Name (ARN) of the private workforce.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:workforce/.*

Required: Yes

WorkforceName

The name of the private workforce whose access you want to restrict. WorkforceName is automatically set to default when a workforce is created and cannot be modified.

Type: String


Pattern: ^[a-zA-Z0-9-](\[a-zA-Z0-9-]\))*$  

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Workteam
Service: Amazon SageMaker Service
Provides details about a labeling work team.

Contents

CreateDate
The date and time that the work team was created (timestamp).
Type: Timestamp
Required: No

Description
A description of the work team.
Type: String
Pattern: .+
Required: Yes

LastUpdatedDate
The date and time that the work team was last updated (timestamp).
Type: Timestamp
Required: No

MemberDefinitions
The Amazon Cognito user groups that make up the work team.
Type: Array of MemberDefinition (p. 596) objects
Array Members: Minimum number of 1 item. Maximum number of 10 items.
Required: Yes

NotificationConfiguration
Configures SNS notifications of available or expiring work items for work teams.
Type: NotificationConfiguration (p. 636) object
Required: No

ProductListingIds
The Amazon Marketplace identifier for a vendor’s work team.
Type: Array of strings
Required: No

SubDomain
The URI of the labeling job’s user interface. Workers open this URI to start labeling your data objects.
**WorkteamArn**

The Amazon Resource Name (ARN) that identifies the work team.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:workteam/.*`

Required: Yes

**WorkteamName**

The name of the work team.

Type: String


Pattern: `^[a-zA-Z0-9\-]*([a-zA-Z0-9\-]*)$`

Required: Yes

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3

**Amazon SageMaker Runtime**

The following data types are supported by Amazon SageMaker Runtime:
Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see Signature Version 4 Signing Process in the Amazon Web Services General Reference.

**Action**

The action to be performed.

Type: string

Required: Yes

**Version**

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

**X-Amz-Algorithm**

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: AWS4-HMAC-SHA256

Required: Conditional

**X-Amz-Credential**

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: access_key/YYYYMMDD/region/service/aws4_request.

For more information, see Task 2: Create a String to Sign for Signature Version 4 in the Amazon Web Services General Reference.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

**X-Amz-Date**

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: 20120325T120000Z.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is
not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see Handling Dates in Signature Version 4 in the Amazon Web Services General Reference.

Type: string
Required: Conditional

**X-Amz-Security-Token**

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS Security Token Service, go to AWS Services That Work with IAM in the IAM User Guide.

Condition: If you're using temporary security credentials from the AWS Security Token Service, you must include the security token.

Type: string
Required: Conditional

**X-Amz-Signature**

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string
Required: Conditional

**X-Amz-SignedHeaders**

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see Task 1: Create a Canonical Request For Signature Version 4 in the Amazon Web Services General Reference.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string
Required: Conditional
Common Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 400

InternalFailure

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

InvalidAction

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

InvalidClientTokenId

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

InvalidParameterCombination

Parameters that must not be used together were used together.

HTTP Status Code: 400

InvalidParameterValue

An invalid or out-of-range value was supplied for the input parameter.

HTTP Status Code: 400

InvalidQueryParameter

The AWS query string is malformed or does not adhere to AWS standards.

HTTP Status Code: 400

MalformedQueryString

The query string contains a syntax error.

HTTP Status Code: 404

MissingAction

The request is missing an action or a required parameter.

HTTP Status Code: 400
MissingAuthenticationToken

The request must contain either a valid (registered) AWS access key ID or X.509 certificate.

HTTP Status Code: 403

MissingParameter

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

OptInRequired

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

RequestExpired

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

ServiceUnavailable

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400