
Amazon Lookout for Vision API Reference

Welcome

API Version 2020-11-20



Amazon Lookout for Vision API Reference: Welcome

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Welcome

This is the Amazon Lookout for Vision API Reference. It provides descriptions of actions, data types, common parameters, and common errors.

Amazon Lookout for Vision enables you to find visual defects in industrial products, accurately and at scale. It uses computer vision to identify missing components in an industrial product, damage to vehicles or structures, irregularities in production lines, and even minuscule defects in silicon wafers — or any other physical item where quality is important such as a missing capacitor on printed circuit boards.

This document was last published on June 14, 2021.

Actions

The following actions are supported:

- [CreateDataset](#) (p. 3)
- [CreateModel](#) (p. 7)
- [CreateProject](#) (p. 11)
- [DeleteDataset](#) (p. 14)
- [DeleteModel](#) (p. 17)
- [DeleteProject](#) (p. 20)
- [DescribeDataset](#) (p. 23)
- [DescribeModel](#) (p. 26)
- [DescribeProject](#) (p. 29)
- [DetectAnomalies](#) (p. 32)
- [ListDatasetEntries](#) (p. 35)
- [ListModels](#) (p. 39)
- [ListProjects](#) (p. 42)
- [ListTagsForResource](#) (p. 45)
- [StartModel](#) (p. 47)
- [StopModel](#) (p. 50)
- [TagResource](#) (p. 53)
- [UntagResource](#) (p. 56)
- [UpdateDatasetEntries](#) (p. 58)

CreateDataset

Creates a new dataset in an Amazon Lookout for Vision project. `CreateDataset` can create a training or a test dataset from a valid dataset source (`DatasetSource`).

If you want a single dataset project, specify `train` for the value of `DatasetType`.

To have a project with separate training and test datasets, call `CreateDataset` twice. On the first call, specify `train` for the value of `DatasetType`. On the second call, specify `test` for the value of `DatasetType`.

This operation requires permissions to perform the `lookoutvision:CreateDataset` operation.

Request Syntax

```
POST /2020-11-20/projects/projectName/datasets HTTP/1.1
X-Amzn-Client-Token: ClientToken
Content-type: application/json

{
  "DatasetSource": {
    "GroundTruthManifest": {
      "S3Object": {
        "Bucket": "string",
        "Key": "string",
        "VersionId": "string"
      }
    }
  },
  "DatasetType": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

[ClientToken \(p. 3\)](#)

`ClientToken` is an idempotency token that ensures a call to `CreateDataset` completes only once. You choose the value to pass. For example, An issue might prevent you from getting a response from `CreateDataset`. In this case, safely retry your call to `CreateDataset` by using the same `ClientToken` parameter value.

If you don't supply a value for `ClientToken`, the AWS SDK you are using inserts a value for you. This prevents retries after a network error from making multiple dataset creation requests. You'll need to provide your own value for other use cases.

An error occurs if the other input parameters are not the same as in the first request. Using a different value for `ClientToken` is considered a new call to `CreateDataset`. An idempotency token is active for 8 hours.

Length Constraints: Minimum length of 1. Maximum length of 64.

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

[projectName \(p. 3\)](#)

The name of the project in which you want to create a dataset.

Length Constraints: Minimum length of 1. Maximum length of 255.

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

DatasetSource (p. 3)

The location of the manifest file that Amazon Lookout for Vision uses to create the dataset.

If you don't specify `DatasetSource`, an empty dataset is created and the operation synchronously returns. Later, you can add JSON Lines by calling [UpdateDatasetEntries \(p. 58\)](#).

If you specify a value for `DataSource`, the manifest at the S3 location is validated and used to create the dataset. The call to `CreateDataset` is asynchronous and might take a while to complete. To find out the current status, Check the value of `Status` returned in a call to [DescribeDataset \(p. 23\)](#).

Type: [DatasetSource \(p. 67\)](#) object

Required: No

DatasetType (p. 3)

The type of the dataset. Specify `train` for a training dataset. Specify `test` for a test dataset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: `train|test`

Required: Yes

Response Syntax

```
HTTP/1.1 202
Content-type: application/json

{
  "DatasetMetadata": {
    "CreationTimestamp": number,
    "DatasetType": "string",
    "Status": "string",
    "StatusMessage": "string"
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 202 response.

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

DatasetMetadata (p. 4)

Information about the dataset.

Type: [DatasetMetadata \(p. 66\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ServiceQuotaExceededException

A service quota was exceeded the allowed limit. For more information, see [Limits in Amazon Lookout for Vision in the Amazon Lookout for Vision Developer Guide](#).

HTTP Status Code: 402

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

CreateModel

Creates a new version of a model within an Amazon Lookout for Vision project. `CreateModel` is an asynchronous operation in which Amazon Lookout for Vision trains, tests, and evaluates a new version of a model.

To get the current status, check the `Status` field returned in the response from [DescribeModel](#) (p. 26).

If the project has a single dataset, Amazon Lookout for Vision internally splits the dataset to create a training and a test dataset. If the project has a training and a test dataset, Lookout for Vision uses the respective datasets to train and test the model.

After training completes, the evaluation metrics are stored at the location specified in `OutputConfig`.

This operation requires permissions to perform the `lookoutvision:CreateModel` operation. If you want to tag your model, you also require permission to the `lookoutvision:TagResource` operation.

Request Syntax

```
POST /2020-11-20/projects/projectName/models HTTP/1.1
X-Amzn-Client-Token: ClientToken
Content-type: application/json
```

```
{
  "Description": "string",
  "KmsKeyId": "string",
  "OutputConfig": {
    "S3Location": {
      "Bucket": "string",
      "Prefix": "string"
    }
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

URI Request Parameters

The request uses the following URI parameters.

ClientToken (p. 7)

`ClientToken` is an idempotency token that ensures a call to `CreateModel` completes only once. You choose the value to pass. For example, An issue might prevent you from getting a response from `CreateModel`. In this case, safely retry your call to `CreateModel` by using the same `ClientToken` parameter value.

If you don't supply a value for `ClientToken`, the AWS SDK you are using inserts a value for you. This prevents retries after a network error from starting multiple training jobs. You'll need to provide your own value for other use cases.

An error occurs if the other input parameters are not the same as in the first request. Using a different value for `ClientToken` is considered a new call to `CreateModel`. An idempotency token is active for 8 hours.

Length Constraints: Minimum length of 1. Maximum length of 64.

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

[projectName \(p. 7\)](#)

The name of the project in which you want to create a model version.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_\-]*`

Required: Yes

Request Body

The request accepts the following data in JSON format.

[Description \(p. 7\)](#)

A description for the version of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 500.

Pattern: `[0-9A-Za-z\._\-]*`

Required: No

[KmsKeyId \(p. 7\)](#)

The identifier for your AWS Key Management Service (AWS KMS) customer master key (CMK). The key is used to encrypt training and test images copied into the service for model training. Your source images are unaffected. If this parameter is not specified, the copied images are encrypted by a key that AWS owns and manages.

Type: String

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

Pattern: `^[A-Za-z0-9][A-Za-z0-9:\/+=, @. -]{0,2048}$`

Required: No

[OutputConfig \(p. 7\)](#)

The location where Amazon Lookout for Vision saves the training results.

Type: [OutputConfig \(p. 77\)](#) object

Required: Yes

[Tags \(p. 7\)](#)

A set of tags (key-value pairs) that you want to attach to the model.

Type: Array of [Tag \(p. 82\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Syntax

```
HTTP/1.1 202
Content-type: application/json

{
  "ModelMetadata": {
    "CreationTimestamp": number,
    "Description": string,
    "ModelArn": string,
    "ModelVersion": string,
    "Performance": {
      "F1Score": number,
      "Precision": number,
      "Recall": number
    },
    "Status": string,
    "StatusMessage": string
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 202 response.

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

ModelMetadata (p. 9)

The response from a call to `CreateModel`.

Type: [ModelMetadata \(p. 74\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerError

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ServiceQuotaExceededException

A service quota was exceeded the allowed limit. For more information, see Limits in Amazon Lookout for Vision in the Amazon Lookout for Vision Developer Guide.

HTTP Status Code: 402

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

CreateProject

Creates an empty Amazon Lookout for Vision project. After you create the project, add a dataset by calling [CreateDataset \(p. 3\)](#).

This operation requires permissions to perform the `lookoutvision:CreateProject` operation.

Request Syntax

```
POST /2020-11-20/projects HTTP/1.1
X-Amzn-Client-Token: ClientToken
Content-type: application/json

{
  "ProjectName": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

ClientToken (p. 11)

`ClientToken` is an idempotency token that ensures a call to `CreateProject` completes only once. You choose the value to pass. For example, An issue might prevent you from getting a response from `CreateProject`. In this case, safely retry your call to `CreateProject` by using the same `ClientToken` parameter value.

If you don't supply a value for `ClientToken`, the AWS SDK you are using inserts a value for you. This prevents retries after a network error from making multiple project creation requests. You'll need to provide your own value for other use cases.

An error occurs if the other input parameters are not the same as in the first request. Using a different value for `ClientToken` is considered a new call to `CreateProject`. An idempotency token is active for 8 hours.

Length Constraints: Minimum length of 1. Maximum length of 64.

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

Request Body

The request accepts the following data in JSON format.

ProjectName (p. 11)

The name for the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_\-]*`

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "ProjectMetadata": {
    "CreationTimestamp": number,
    "ProjectArn": "string",
    "ProjectName": "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.

ProjectMetadata (p. 12)

Information about the project.

Type: [ProjectMetadata \(p. 80\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ServiceQuotaExceededException

A service quota was exceeded the allowed limit. For more information, see [Limits in Amazon Lookout for Vision in the Amazon Lookout for Vision Developer Guide](#).

HTTP Status Code: 402

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DeleteDataset

Deletes an existing Amazon Lookout for Vision dataset.

If your the project has a single dataset, you must create a new dataset before you can create a model.

If you project has a training dataset and a test dataset consider the following.

- If you delete the test dataset, your project reverts to a single dataset project. If you then train the model, Amazon Lookout for Vision internally splits the remaining dataset into a training and test dataset.
- If you delete the training dataset, you must create a training dataset before you can create a model.

This operation requires permissions to perform the `lookoutvision:DeleteDataset` operation.

Request Syntax

```
DELETE /2020-11-20/projects/projectName/datasets/datasetType HTTP/1.1  
X-Amzn-Client-Token: ClientToken
```

URI Request Parameters

The request uses the following URI parameters.

ClientToken (p. 14)

`ClientToken` is an idempotency token that ensures a call to `DeleteDataset` completes only once. You choose the value to pass. For example, An issue might prevent you from getting a response from `DeleteDataset`. In this case, safely retry your call to `DeleteDataset` by using the same `ClientToken` parameter value.

If you don't supply a value for `ClientToken`, the AWS SDK you are using inserts a value for you. This prevents retries after a network error from making multiple deletion requests. You'll need to provide your own value for other use cases.

An error occurs if the other input parameters are not the same as in the first request. Using a different value for `ClientToken` is considered a new call to `DeleteDataset`. An idempotency token is active for 8 hours.

Length Constraints: Minimum length of 1. Maximum length of 64.

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

datasetType (p. 14)

The type of the dataset to delete. Specify `train` to delete the training dataset. Specify `test` to delete the test dataset. To delete the dataset in a single dataset project, specify `train`.

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: `train|test`

Required: Yes

projectName (p. 14)

The name of the project that contains the dataset that you want to delete.

Length Constraints: Minimum length of 1. Maximum length of 255.

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

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 202
```

Response Elements

If the action is successful, the service sends back an HTTP 202 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DeleteModel

Deletes an Amazon Lookout for Vision model. You can't delete a running model. To stop a running model, use the [StopModel](#) (p. 50) operation.

It might take a few seconds to delete a model. To determine if a model has been deleted, call [ListProjects](#) (p. 42) and check if the version of the model (`ModelVersion`) is in the `Models` array.

This operation requires permissions to perform the `lookoutvision:DeleteModel` operation.

Request Syntax

```
DELETE /2020-11-20/projects/projectName/models/modelVersion HTTP/1.1  
X-Amzn-Client-Token: ClientToken
```

URI Request Parameters

The request uses the following URI parameters.

[ClientToken](#) (p. 17)

`ClientToken` is an idempotency token that ensures a call to `DeleteModel` completes only once. You choose the value to pass. For example, an issue might prevent you from getting a response from `DeleteModel`. In this case, safely retry your call to `DeleteModel` by using the same `ClientToken` parameter value.

If you don't supply a value for `ClientToken`, the AWS SDK you are using inserts a value for you. This prevents retries after a network error from making multiple model deletion requests. You'll need to provide your own value for other use cases.

An error occurs if the other input parameters are not the same as in the first request. Using a different value for `ClientToken` is considered a new call to `DeleteModel`. An idempotency token is active for 8 hours.

Length Constraints: Minimum length of 1. Maximum length of 64.

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

[modelVersion](#) (p. 17)

The version of the model that you want to delete.

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: `([1-9][0-9]*|latest)`

Required: Yes

[projectName](#) (p. 17)

The name of the project that contains the model that you want to delete.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_\-]*`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 202
Content-type: application/json

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

Response Elements

If the action is successful, the service sends back an HTTP 202 response.

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

ModelArn (p. 18)

The Amazon Resource Name (ARN) of the model that was deleted.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DeleteProject

Deletes an Amazon Lookout for Vision project.

To delete a project, you must first delete each version of the model associated with the project. To delete a model use the [DeleteModel \(p. 17\)](#) operation.

You also have to delete the dataset(s) associated with the model. For more information, see [DeleteDataset \(p. 14\)](#). The images referenced by the training and test datasets aren't deleted.

This operation requires permissions to perform the `lookoutvision:DeleteProject` operation.

Request Syntax

```
DELETE /2020-11-20/projects/projectName HTTP/1.1  
X-Amzn-Client-Token: ClientToken
```

URI Request Parameters

The request uses the following URI parameters.

ClientToken (p. 20)

`ClientToken` is an idempotency token that ensures a call to `DeleteProject` completes only once. You choose the value to pass. For example, An issue might prevent you from getting a response from `DeleteProject`. In this case, safely retry your call to `DeleteProject` by using the same `ClientToken` parameter value.

If you don't supply a value for `ClientToken`, the AWS SDK you are using inserts a value for you. This prevents retries after a network error from making multiple project deletion requests. You'll need to provide your own value for other use cases.

An error occurs if the other input parameters are not the same as in the first request. Using a different value for `ClientToken` is considered a new call to `DeleteProject`. An idempotency token is active for 8 hours.

Length Constraints: Minimum length of 1. Maximum length of 64.

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

projectName (p. 20)

The name of the project to delete.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_\-]*`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json
```

```
{  
  "ProjectArn": "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.

ProjectArn (p. 20)

The Amazon Resource Name (ARN) of the project that was deleted.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribeDataset

Describe an Amazon Lookout for Vision dataset.

This operation requires permissions to perform the `lookoutvision:DescribeDataset` operation.

Request Syntax

```
GET /2020-11-20/projects/projectName/datasets/datasetType HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

`datasetType` (p. 23)

The type of the dataset to describe. Specify `train` to describe the training dataset. Specify `test` to describe the test dataset. If you have a single dataset project, specify `train`.

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: `train|test`

Required: Yes

`projectName` (p. 23)

The name of the project that contains the dataset that you want to describe.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_\-]*`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "DatasetDescription": {
    "CreationTimestamp": number,
    "DatasetType": "string",
    "ImageStats": {
      "Anomaly": number,
      "Labeled": number,
      "Normal": number,
      "Total": number
    },
    "LastUpdatedTimestamp": number,
    "ProjectName": "string",
```

```
"Status": "string",  
"StatusMessage": "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.

DatasetDescription (p. 23)

The description of the requested dataset.

Type: [DatasetDescription \(p. 62\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribeModel

Describes a version of an Amazon Lookout for Vision model.

This operation requires permissions to perform the `lookoutvision:DescribeModel` operation.

Request Syntax

```
GET /2020-11-20/projects/projectName/models/modelVersion HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

modelVersion (p. 26)

The version of the model that you want to describe.

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: (`[1-9][0-9]*|latest`)

Required: Yes

projectName (p. 26)

The project that contains the version of a model that you want to describe.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_\-]*`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "ModelDescription": {
    "CreationTimestamp": number,
    "Description": "string",
    "EvaluationEndTimestamp": number,
    "EvaluationManifest": {
      "Bucket": "string",
      "Key": "string"
    },
    "EvaluationResult": {
      "Bucket": "string",
      "Key": "string"
    }
  },
}
```



```
"KmsKeyId": "string",
"ModelArn": "string",
"ModelVersion": "string",
"OutputConfig": {
  "S3Location": {
    "Bucket": "string",
    "Prefix": "string"
  }
},
"Performance": {
  "F1Score": number,
  "Precision": number,
  "Recall": number
},
>Status": "string",
>StatusMessage": "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.

ModelDescription (p. 26)

Contains the description of the model.

Type: [ModelDescription \(p. 71\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerError

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribeProject

Describes an Amazon Lookout for Vision project.

This operation requires permissions to perform the `lookoutvision:DescribeProject` operation.

Request Syntax

```
GET /2020-11-20/projects/projectName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

`projectName` (p. 29)

The name of the project that you want to describe.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_\-]*`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "ProjectDescription": {
    "CreationTimestamp": number,
    "Datasets": [
      {
        "CreationTimestamp": number,
        "DatasetType": "string",
        "Status": "string",
        "StatusMessage": "string"
      }
    ],
    "ProjectArn": "string",
    "ProjectName": "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.

ProjectDescription (p. 29)

The description of the project.

Type: [ProjectDescription \(p. 79\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

DetectAnomalies

Detects anomalies in an image that you supply.

The response from `DetectAnomalies` includes a boolean prediction that the image contains one or more anomalies and a confidence value for the prediction.

Note

Before calling `DetectAnomalies`, you must first start your model with the [StartModel \(p. 47\)](#) operation. You are charged for the amount of time, in minutes, that a model runs and for the number of anomaly detection units that your model uses. If you are not using a model, use the [StopModel \(p. 50\)](#) operation to stop your model.

This operation requires permissions to perform the `lookoutvision:DetectAnomalies` operation.

Request Syntax

```
POST /2020-11-20/projects/projectName/models/modelVersion/detect HTTP/1.1  
Content-Type: ContentType
```

Body

URI Request Parameters

The request uses the following URI parameters.

[ContentType \(p. 32\)](#)

The type of the image passed in `Body`. Valid values are `image/png` (PNG format images) and `image/jpeg` (JPG format images).

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `.*`

Required: Yes

[modelVersion \(p. 32\)](#)

The version of the model that you want to use.

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: `([1-9][0-9]*|latest)`

Required: Yes

[projectName \(p. 32\)](#)

The name of the project that contains the model version that you want to use.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_\-]*`

Required: Yes

Request Body

The request accepts the following binary data.

Body (p. 32)

The unencrypted image bytes that you want to analyze.

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "DetectAnomalyResult": {
    "Confidence": number,
    "IsAnomalous": boolean,
    "Source": {
      "Type": "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.

DetectAnomalyResult (p. 33)

The results of the `DetectAnomalies` operation.

Type: [DetectAnomalyResult \(p. 68\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListDatasetEntries

Lists the JSON Lines within a dataset. An Amazon Lookout for Vision JSON Line contains the anomaly information for a single image, including the image location and the assigned label.

This operation requires permissions to perform the `lookoutvision:ListDatasetEntries` operation.

Request Syntax

```
GET /2020-11-20/projects/projectName/datasets/datasetType/entries?  
anomalyClass=AnomalyClass&createdAfter=AfterCreationDate&createdBefore=BeforeCreationDate&labeled=Labeled  
HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

AfterCreationDate (p. 35)

Only includes entries after the specified date in the response. For example,
`2020-06-23T00:00:00`.

AnomalyClass (p. 35)

Specify `normal` to include only normal images. Specify `anomaly` to only include anomalous entries. If you don't specify a value, Amazon Lookout for Vision returns normal and anomalous images.

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: `(normal|anomaly)`

BeforeCreationDate (p. 35)

Only includes entries before the specified date in the response. For example,
`2020-06-23T00:00:00`.

datasetType (p. 35)

The type of the dataset that you want to list. Specify `train` to list the training dataset. Specify `test` to list the test dataset. If you have a single dataset project, specify `train`.

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: `train|test`

Required: Yes

Labeled (p. 35)

Specify `true` to include labeled entries, otherwise specify `false`. If you don't specify a value, Lookout for Vision returns all entries.

MaxResults (p. 35)

The maximum number of results to return per paginated call. The largest value you can specify is 100. If you specify a value greater than 100, a `ValidationException` error occurs. The default value is 100.

Valid Range: Minimum value of 1. Maximum value of 100.

NextToken (p. 35)

If the previous response was incomplete (because there is more data to retrieve), Amazon Lookout for Vision returns a pagination token in the response. You can use this pagination token to retrieve the next set of dataset entries.

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9\|\+\=\]{0,2048}$`

projectName (p. 35)

The name of the project that contains the dataset that you want to list.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_\-]*`

Required: Yes

SourceRefContains (p. 35)

Perform a "contains" search on the values of the `source-ref` key within the dataset. For example a value of "IMG_17" returns all JSON Lines where the `source-ref` key value matches *IMG_17**.

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

Pattern: `.*\S.*`

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "DatasetEntries": [ "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.

DatasetEntries (p. 36)

A list of the entries (JSON Lines) within the dataset.

Type: Array of strings

Length Constraints: Minimum length of 2. Maximum length of 8192.

Pattern: `^\{.*\}$`

[NextToken \(p. 36\)](#)

If the response is truncated, Amazon Lookout for Vision returns this token that you can use in the subsequent request to retrieve the next set of dataset entries.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9\./\+=]{0,2048}$`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListModels

Lists the versions of a model in an Amazon Lookout for Vision project.

This operation requires permissions to perform the `lookoutvision:ListModels` operation.

Request Syntax

```
GET /2020-11-20/projects/projectName/models?maxResults=MaxResults&nextToken=NextToken
HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

MaxResults (p. 39)

The maximum number of results to return per paginated call. The largest value you can specify is 100. If you specify a value greater than 100, a `ValidationException` error occurs. The default value is 100.

Valid Range: Minimum value of 1. Maximum value of 100.

NextToken (p. 39)

If the previous response was incomplete (because there is more data to retrieve), Amazon Lookout for Vision returns a pagination token in the response. You can use this pagination token to retrieve the next set of models.

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9\./\+=]{0,2048}$`

projectName (p. 39)

The name of the project that contains the model versions that you want to list.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_\-]*`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "Models": [
    {
      "CreationTimestamp": number,
```

```
    "Description": "string",
    "ModelArn": "string",
    "ModelVersion": "string",
    "Performance": {
      "F1Score": number,
      "Precision": number,
      "Recall": number
    },
    "Status": "string",
    "StatusMessage": "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. 39)

A list of model versions in the specified project.

Type: Array of [ModelMetadata](#) (p. 74) objects

NextToken (p. 39)

If the response is truncated, Amazon Lookout for Vision returns this token that you can use in the subsequent request to retrieve the next set of models.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9\./\+]=]{0,2048}$`

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 85).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListProjects

Lists the Amazon Lookout for Vision projects in your AWS account.

This operation requires permissions to perform the `lookoutvision:ListProjects` operation.

Request Syntax

```
GET /2020-11-20/projects?maxResults=MaxResults&nextToken=NextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

MaxResults (p. 42)

The maximum number of results to return per paginated call. The largest value you can specify is 100. If you specify a value greater than 100, a `ValidationException` error occurs. The default value is 100.

Valid Range: Minimum value of 1. Maximum value of 100.

NextToken (p. 42)

If the previous response was incomplete (because there is more data to retrieve), Amazon Lookout for Vision returns a pagination token in the response. You can use this pagination token to retrieve the next set of projects.

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9\./\+=]{0,2048}$`

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "NextToken": "string",
  "Projects": [
    {
      "CreationTimestamp": number,
      "ProjectArn": "string",
      "ProjectName": "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. 42)

If the response is truncated, Amazon Lookout for Vision returns this token that you can use in the subsequent request to retrieve the next set of projects.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9\./\+=]{0,2048}$`

Projects (p. 42)

A list of projects in your AWS account.

Type: Array of [ProjectMetadata \(p. 80\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListTagsForResource

Returns a list of tags attached to the specified Amazon Lookout for Vision model.

This operation requires permissions to perform the `lookoutvision:ListTagsForResource` operation.

Request Syntax

```
GET /2020-11-20/tags/resourceArn HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

[resourceArn \(p. 45\)](#)

The Amazon Resource Name (ARN) of the model for which you want to list tags.

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/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 \(p. 45\)](#)

A map of tag keys and values attached to the specified model.

Type: Array of [Tag \(p. 82\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

StartModel

Starts the running of the version of an Amazon Lookout for Vision model. Starting a model takes a while to complete. To check the current state of the model, use [DescribeModel](#) (p. 26).

A model is ready to use when its status is HOSTED.

Once the model is running, you can detect custom labels in new images by calling [DetectAnomalies](#) (p. 32).

Note

You are charged for the amount of time that the model is running. To stop a running model, call [StopModel](#) (p. 50).

This operation requires permissions to perform the `lookoutvision:StartModel` operation.

Request Syntax

```
POST /2020-11-20/projects/projectName/models/modelVersion/start HTTP/1.1
X-Amzn-Client-Token: ClientToken
Content-type: application/json

{
  "MinInferenceUnits": number
}
```

URI Request Parameters

The request uses the following URI parameters.

[ClientToken](#) (p. 47)

`ClientToken` is an idempotency token that ensures a call to `StartModel` completes only once. You choose the value to pass. For example, An issue might prevent you from getting a response from `StartModel`. In this case, safely retry your call to `StartModel` by using the same `ClientToken` parameter value.

If you don't supply a value for `ClientToken`, the AWS SDK you are using inserts a value for you. This prevents retries after a network error from making multiple start requests. You'll need to provide your own value for other use cases.

An error occurs if the other input parameters are not the same as in the first request. Using a different value for `ClientToken` is considered a new call to `StartModel`. An idempotency token is active for 8 hours.

Length Constraints: Minimum length of 1. Maximum length of 64.

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

[modelVersion](#) (p. 47)

The version of the model that you want to start.

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: `([1-9][0-9]*|latest)`

Required: Yes

[projectName \(p. 47\)](#)

The name of the project that contains the model that you want to start.

Length Constraints: Minimum length of 1. Maximum length of 255.

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

[MinInferenceUnits \(p. 47\)](#)

The minimum number of inference units to use. A single inference unit represents 1 hour of processing. Use a higher number to increase the TPS throughput of your model. You are charged for the number of inference units that you use.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

Response Syntax

```
HTTP/1.1 202  
Content-type: application/json
```

```
{  
  "Status": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 202 response.

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

[Status \(p. 48\)](#)

The current running status of the model.

Type: String

Valid Values: STARTING_HOSTING | HOSTED | HOSTING_FAILED | STOPPING_HOSTING | SYSTEM_UPDATING

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerError

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ServiceQuotaExceededException

A service quota was exceeded the allowed limit. For more information, see Limits in Amazon Lookout for Vision in the Amazon Lookout for Vision Developer Guide.

HTTP Status Code: 402

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

StopModel

Stops the hosting of a running model. The operation might take a while to complete. To check the current status, call [DescribeModel](#) (p. 26).

After the model hosting stops, the `Status` of the model is `TRAINED`.

This operation requires permissions to perform the `lookoutvision:StopModel` operation.

Request Syntax

```
POST /2020-11-20/projects/projectName/models/modelVersion/stop HTTP/1.1
X-Amzn-Client-Token: ClientToken
```

URI Request Parameters

The request uses the following URI parameters.

ClientToken (p. 50)

`ClientToken` is an idempotency token that ensures a call to `StopModel` completes only once. You choose the value to pass. For example, An issue might prevent you from getting a response from `StopModel`. In this case, safely retry your call to `StopModel` by using the same `ClientToken` parameter value.

If you don't supply a value for `ClientToken`, the AWS SDK you are using inserts a value for you. This prevents retries after a network error from making multiple stop requests. You'll need to provide your own value for other use cases.

An error occurs if the other input parameters are not the same as in the first request. Using a different value for `ClientToken` is considered a new call to `StopModel`. An idempotency token is active for 8 hours.

Length Constraints: Minimum length of 1. Maximum length of 64.

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

modelVersion (p. 50)

The version of the model that you want to stop.

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: `([1-9][0-9]*|latest)`

Required: Yes

projectName (p. 50)

The name of the project that contains the model that you want to stop.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_\-]*`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 202
Content-type: application/json

{
  "Status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 202 response.

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

Status (p. 51)

The status of the model.

Type: String

Valid Values: STARTING_HOSTING | HOSTED | HOSTING_FAILED | STOPPING_HOSTING | SYSTEM_UPDATING

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

TagResource

Adds one or more key-value tags to an Amazon Lookout for Vision model. For more information, see *Tagging a model* in the *Amazon Lookout for Vision Developer Guide*.

This operation requires permissions to perform the `lookoutvision:TagResource` operation.

Request Syntax

```
POST /2020-11-20/tags/resourceArn HTTP/1.1  
Content-type: application/json
```

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

URI Request Parameters

The request uses the following URI parameters.

[resourceArn \(p. 53\)](#)

The Amazon Resource Name (ARN) of the model to assign the tags.

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

Request Body

The request accepts the following data in JSON format.

[Tags \(p. 53\)](#)

The key-value tags to assign to the model.

Type: Array of [Tag \(p. 82\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Syntax

```
HTTP/1.1 200
```

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 \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ServiceQuotaExceededException

A service quota was exceeded the allowed limit. For more information, see Limits in Amazon Lookout for Vision in the Amazon Lookout for Vision Developer Guide.

HTTP Status Code: 402

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

UntagResource

Removes one or more tags from an Amazon Lookout for Vision model. For more information, see *Tagging a model* in the *Amazon Lookout for Vision Developer Guide*.

This operation requires permissions to perform the `lookoutvision:UntagResource` operation.

Request Syntax

```
DELETE /2020-11-20/tags/resourceArn?tagKeys=TagKeys HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

resourceArn (p. 56)

The Amazon Resource Name (ARN) of the model from which you want to remove tags.

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

TagKeys (p. 56)

A list of the keys of the tags that you want to remove.

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[\p{L}\p{Z}\p{N}_ . : / = + \ - @] * $`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

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 \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateDatasetEntries

Adds one or more JSON Line entries to a dataset. A JSON Line includes information about an image used for training or testing an Amazon Lookout for Vision model.

For more information, see [Defining JSON lines for anomaly classification](#).

Note

The images you reference in the `source-ref` field of a JSON line, must be in the same S3 bucket as the existing images in the dataset.

Updating a dataset might take a while to complete. To check the current status, call [DescribeDataset \(p. 23\)](#) and check the `Status` field in the response.

This operation requires permissions to perform the `lookoutvision:UpdateDatasetEntries` operation.

Request Syntax

```
PATCH /2020-11-20/projects/projectName/datasets/datasetType/entries HTTP/1.1
X-Amzn-Client-Token: ClientToken
Content-type: application/json

{
  "Changes": blob
}
```

URI Request Parameters

The request uses the following URI parameters.

ClientToken (p. 58)

`ClientToken` is an idempotency token that ensures a call to `UpdateDatasetEntries` completes only once. You choose the value to pass. For example, An issue might prevent you from getting a response from `UpdateDatasetEntries`. In this case, safely retry your call to `UpdateDatasetEntries` by using the same `ClientToken` parameter value.

If you don't supply a value for `ClientToken`, the AWS SDK you are using inserts a value for you. This prevents retries after a network error from making multiple updates with the same dataset entries. You'll need to provide your own value for other use cases.

An error occurs if the other input parameters are not the same as in the first request. Using a different value for `ClientToken` is considered a new call to `UpdateDatasetEntries`. An idempotency token is active for 8 hours.

Length Constraints: Minimum length of 1. Maximum length of 64.

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

datasetType (p. 58)

The type of the dataset that you want to update. Specify `train` to update the training dataset. Specify `test` to update the test dataset. If you have a single dataset project, specify `train`.

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: `train|test`

Required: Yes

[projectName \(p. 58\)](#)

The name of the project that contains the dataset that you want to update.

Length Constraints: Minimum length of 1. Maximum length of 255.

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

[Changes \(p. 58\)](#)

The entries to add to the dataset.

Type: Base64-encoded binary data object

Length Constraints: Minimum length of 1. Maximum length of 10485760.

Required: Yes

Response Syntax

```
HTTP/1.1 202
Content-type: application/json

{
  "Status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 202 response.

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

[Status \(p. 59\)](#)

The status of the dataset update.

Type: String

Valid Values: CREATE_IN_PROGRESS | CREATE_COMPLETE | CREATE_FAILED |
UPDATE_IN_PROGRESS | UPDATE_COMPLETE | UPDATE_FAILED_ROLLBACK_IN_PROGRESS
| UPDATE_FAILED_ROLLBACK_COMPLETE | DELETE_IN_PROGRESS | DELETE_COMPLETE |
DELETE_FAILED

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 85\)](#).

AccessDeniedException

You are not authorized to perform the action.

HTTP Status Code: 403

ConflictException

The update or deletion of a resource caused an inconsistent state.

HTTP Status Code: 409

InternalServerErrorException

Amazon Lookout for Vision experienced a service issue. Try your call again.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 404

ThrottlingException

Amazon Lookout for Vision is temporarily unable to process the request. Try your call again.

HTTP Status Code: 429

ValidationException

An input validation error occurred. For example, invalid characters in a project name, or if a pagination token is invalid.

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 V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Data Types

The Amazon Lookout for Vision API contains several data types that various actions use. This section describes each data type in detail.

Note

The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- [DatasetDescription](#) (p. 62)
- [DatasetGroundTruthManifest](#) (p. 64)
- [DatasetImageStats](#) (p. 65)
- [DatasetMetadata](#) (p. 66)
- [DatasetSource](#) (p. 67)
- [DetectAnomalyResult](#) (p. 68)
- [ImageSource](#) (p. 69)
- [InputS3Object](#) (p. 70)
- [ModelDescription](#) (p. 71)
- [ModelMetadata](#) (p. 74)
- [ModelPerformance](#) (p. 76)
- [OutputConfig](#) (p. 77)
- [OutputS3Object](#) (p. 78)
- [ProjectDescription](#) (p. 79)
- [ProjectMetadata](#) (p. 80)
- [S3Location](#) (p. 81)
- [Tag](#) (p. 82)

DatasetDescription

The description for a dataset. For more information, see [DescribeDataset \(p. 23\)](#).

Contents

CreationTimestamp

The Unix timestamp for the time and date that the dataset was created.

Type: Timestamp

Required: No

DatasetType

The type of the dataset. The value `train` represents a training dataset or single dataset project. The value `test` represents a test dataset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: `train|test`

Required: No

ImageStats

Statistics about the images in a dataset.

Type: [DatasetImageStats \(p. 65\)](#) object

Required: No

LastUpdatedTimestamp

The Unix timestamp for the date and time that the dataset was last updated.

Type: Timestamp

Required: No

ProjectName

The name of the project that contains the dataset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_\-]*`

Required: No

Status

The status of the dataset.

Type: String

Valid Values: `CREATE_IN_PROGRESS | CREATE_COMPLETE | CREATE_FAILED | UPDATE_IN_PROGRESS | UPDATE_COMPLETE | UPDATE_FAILED_ROLLBACK_IN_PROGRESS`

| UPDATE_FAILED_ROLLBACK_COMPLETE | DELETE_IN_PROGRESS | DELETE_COMPLETE |
DELETE_FAILED

Required: No

StatusMessage

The status message for the dataset.

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 V2](#)
- [AWS SDK for Ruby V3](#)

DatasetGroundTruthManifest

Location information about a manifest file. You can use a manifest file to create a dataset.

Contents

S3Object

The S3 bucket location for the manifest file.

Type: [InputS3Object \(p. 70\)](#) 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 V2](#)
- [AWS SDK for Ruby V3](#)

DatasetImageStats

Statistics about the images in a dataset.

Contents

Anomaly

the total number of images labeled as an anomaly.

Type: Integer

Required: No

Labeled

The total number of labeled images.

Type: Integer

Required: No

Normal

The total number of images labeled as normal.

Type: Integer

Required: No

Total

The total number of images in the dataset.

Type: Integer

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 V2](#)
- [AWS SDK for Ruby V3](#)

DatasetMetadata

Summary information for an Amazon Lookout for Vision dataset. For more information, see [DescribeDataset \(p. 23\)](#) and [ProjectDescription \(p. 79\)](#).

Contents

CreationTimestamp

The Unix timestamp for the date and time that the dataset was created.

Type: Timestamp

Required: No

DatasetType

The type of the dataset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: `train|test`

Required: No

Status

The status for the dataset.

Type: String

Valid Values: `CREATE_IN_PROGRESS | CREATE_COMPLETE | CREATE_FAILED | UPDATE_IN_PROGRESS | UPDATE_COMPLETE | UPDATE_FAILED_ROLLBACK_IN_PROGRESS | UPDATE_FAILED_ROLLBACK_COMPLETE | DELETE_IN_PROGRESS | DELETE_COMPLETE | DELETE_FAILED`

Required: No

StatusMessage

The status message for the dataset.

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 V2](#)
- [AWS SDK for Ruby V3](#)

DatasetSource

Information about the location of a manifest file that Amazon Lookout for Vision uses to create a dataset.

Contents

GroundTruthManifest

Location information for the manifest file.

Type: [DatasetGroundTruthManifest \(p. 64\)](#) 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 V2](#)
- [AWS SDK for Ruby V3](#)

DetectAnomalyResult

The prediction results from a call to [DetectAnomalies](#) (p. 32).

Contents

Confidence

The confidence that Amazon Lookout for Vision has in the accuracy of the prediction.

Type: Float

Required: No

IsAnomalous

True if the image contains an anomaly, otherwise false.

Type: Boolean

Required: No

Source

The source of the image that was analyzed. `direct` means that the images was supplied from the local computer. No other values are supported.

Type: [ImageSource](#) (p. 69) 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 V2](#)
- [AWS SDK for Ruby V3](#)

ImageSource

The source for an image.

Contents

Type

The type of the image.

Type: String

Pattern: `direct`

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 V2](#)
- [AWS SDK for Ruby V3](#)

InputS3Object

Amazon S3 Location information for an input manifest file.

Contents

Bucket

The Amazon S3 bucket that contains the manifest.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: [0-9A-Za-z\.\-]*

Required: Yes

Key

The name and location of the manifest file within the bucket.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^([a-zA-Z0-9!_.*'()-][a-zA-Z0-9!_.*'()-]*)?&

Required: Yes

VersionId

The version ID of the bucket.

Type: String

Length Constraints: Minimum length of 1. 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 V2](#)
- [AWS SDK for Ruby V3](#)

ModelDescription

Describes an Amazon Lookout for Vision model.

Contents

CreationTimestamp

The unix timestamp for the date and time that the model was created.

Type: Timestamp

Required: No

Description

The description for the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 500.

Pattern: [0-9A-Za-z\.\-_]*

Required: No

EvaluationEndTimestamp

The unix timestamp for the date and time that the evaluation ended.

Type: Timestamp

Required: No

EvaluationManifest

The S3 location where Amazon Lookout for Vision saves the manifest file that was used to test the trained model and generate the performance scores.

Type: [OutputS3Object \(p. 78\)](#) object

Required: No

EvaluationResult

The S3 location where Amazon Lookout for Vision saves the performance metrics.

Type: [OutputS3Object \(p. 78\)](#) object

Required: No

KmsKeyId

The identifier for the AWS Key Management Service (AWS KMS) key that was used to encrypt the model during training.

Type: String

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

Pattern: ^[A-Za-z0-9][A-Za-z0-9:_/+=@.-]{0,2048}\$

Required: No

ModelArn

The Amazon Resource Name (ARN) of the model.

Type: String

Required: No

ModelVersion

The version of the model

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: (`[1-9][0-9]*|latest`)

Required: No

OutputConfig

The S3 location where Amazon Lookout for Vision saves model training files.

Type: [OutputConfig \(p. 77\)](#) object

Required: No

Performance

Performance metrics for the model. Created during training.

Type: [ModelPerformance \(p. 76\)](#) object

Required: No

Status

The status of the model.

Type: String

Valid Values: `TRAINING` | `TRAINED` | `TRAINING_FAILED` | `STARTING_HOSTING` | `HOSTED` | `HOSTING_FAILED` | `STOPPING_HOSTING` | `SYSTEM_UPDATING` | `DELETING`

Required: No

StatusMessage

The status message for the model.

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 V2](#)
- [AWS SDK for Ruby V3](#)

ModelMetadata

Describes an Amazon Lookout for Vision model.

Contents

CreationTimestamp

The unix timestamp for the date and time that the model was created.

Type: Timestamp

Required: No

Description

The description for the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 500.

Pattern: [0-9A-Za-z\.\-_]*

Required: No

ModelArn

The Amazon Resource Name (ARN) of the model.

Type: String

Required: No

ModelVersion

The version of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10.

Pattern: ([1-9][0-9]*|latest)

Required: No

Performance

Performance metrics for the model. Not available until training has successfully completed.

Type: [ModelPerformance \(p. 76\)](#) object

Required: No

Status

The status of the model.

Type: String

Valid Values: TRAINING | TRAINED | TRAINING_FAILED | STARTING_HOSTING | HOSTED
| HOSTING_FAILED | STOPPING_HOSTING | SYSTEM_UPDATING | DELETING

Required: No

StatusMessage

The status message for the model.

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 V2](#)
- [AWS SDK for Ruby V3](#)

ModelPerformance

Information about the evaluation performance of a trained model.

Contents

F1Score

The overall F1 score metric for the trained model.

Type: Float

Required: No

Precision

The overall precision metric value for the trained model.

Type: Float

Required: No

Recall

The overall recall metric value for the trained model.

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 V2](#)
- [AWS SDK for Ruby V3](#)

OutputConfig

The S3 location where Amazon Lookout for Vision saves model training files.

Contents

S3Location

The S3 location for the output.

Type: [S3Location](#) (p. 81) 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 V2](#)
- [AWS SDK for Ruby V3](#)

OutputS3Object

The S3 location where Amazon Lookout for Vision saves training output.

Contents

Bucket

The bucket that contains the training output.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `[0-9A-Za-z\.\-_]*`

Required: Yes

Key

The location of the training output in the bucket.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

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 V2](#)
- [AWS SDK for Ruby V3](#)

ProjectDescription

Describe an Amazon Lookout for Vision project. For more information, see [DescribeProject \(p. 29\)](#).

Contents

CreationTimestamp

The unix timestamp for the date and time that the project was created.

Type: Timestamp

Required: No

Datasets

A list of datasets in the project.

Type: Array of [DatasetMetadata \(p. 66\)](#) objects

Required: No

ProjectArn

The Amazon Resource Name (ARN) of the project.

Type: String

Required: No

ProjectName

The name of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

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 V2](#)
- [AWS SDK for Ruby V3](#)

ProjectMetadata

Metadata about an Amazon Lookout for Vision project.

Contents

CreationTimestamp

The unix timestamp for the date and time that the project was created.

Type: Timestamp

Required: No

ProjectArn

The Amazon Resource Name (ARN) of the project.

Type: String

Required: No

ProjectName

The name of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

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 V2](#)
- [AWS SDK for Ruby V3](#)

S3Location

Information about the location training output.

Contents

Bucket

The S3 bucket that contains the training output.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `[0-9A-Za-z\.\-_]*`

Required: Yes

Prefix

The path of the folder, within the S3 bucket, that contains the training output.

Type: String

Length Constraints: Maximum length of 1024.

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 V2](#)
- [AWS SDK for Ruby V3](#)

Tag

A key and value pair that is attached to the specified Amazon Lookout for Vision model.

Contents

Key

The key of the tag that is attached to the specified model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^([\p{L}\p{Z}\p{N}_:/=+\-@]*)$`

Required: Yes

Value

The value of the tag that is attached to the specified model.

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 V2](#)
- [AWS SDK for Ruby V3](#)

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'THHMMSS'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

NotAuthorized

You do not have permission to perform this action.

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