Cloud AutoML Vision

Method: projects.locations.models.export

Exports a trained, "export-able", model to a user specified Google Cloud Storage location. A model is considered export-able if and only if it has an export format defined for it in

ModelExportOutputConfig

(https://cloud.google.com/vision/automl/docs/reference/rest/v1beta1/projects.locations.models/export# ModelExportOutputConfig)

Returns an empty response in the response

(https://cloud.google.com/vision/automl/docs/reference/rest/v1beta1/projects.locations.operations#Operation.FIELDS.response)

field when it completes.

HTTP request

POST https://automl.googleapis.com/v1beta1/{name}:export

Path parameters

Parameters	
name	string
	Required. The resource name of the model to export.
	Authorization requires the following <u>Google IAM</u> (https://cloud.google.com/iam) permission on the specified resource name:
	• automl.models.export

Request body

The request body contains data with the following structure:

JSON representation

```
{
   "outputConfig": {
     object (ModelExportOutputConfig(https://cloud.google.com/vision/automl/docs/reference/rest/
}
}
```

Fields

outputConfig	object (<u>ModelExportOutputConfig</u>
	(https://cloud.google.com/vision/automl/docs/reference/rest/v1beta1/p
	rojects.locations.models/export#ModelExportOutputConfig)
)
	Required. The desired output location and configuration
	Required. The desired output location and configuration.

Response body

If successful, the response body contains an instance of Operation

(https://cloud.google.com/vision/automl/docs/reference/rest/v1beta1/projects.locations.operations#Operation)

Authorization Scopes

Requires the following OAuth scope:

• https://www.googleapis.com/auth/cloud-platform

For more information, see the <u>Authentication Overview</u> (https://cloud.google.com/docs/authentication/).

ModelExportOutputConfig

Output configuration for ModelExport Action.

JSON representation

JSON representation

```
{
  "modelFormat": string,
  "params": {
    string: string,
    ...
},

// Union field destination can be only one of the following:
  "gcsDestination": {
    object (GcsDestination (https://cloud.google.com/vision/automl/docs/reference/rest/v1beta1/Gc),
  "gcrDestination": {
    object (GcrDestination (https://cloud.google.com/vision/automl/docs/reference/rest/v1beta1/pr)
}
// End of list of possible types for union field destination.
}
```

Fields

Fields

modelFormat

string

The format in which the model must be exported. The available, and default, formats depend on the problem and model type (if given problem and type combination doesn't have a format listed, it means its models are not exportable):

For Image Classification (mobile-low-latency-1, mobile-versatile-1, mobile-high-accuracy-1): "tflite" (default), "edgetpu_tflite", "tf_saved_model", "tf_js", "docker", "core_ml".

Formats description:

- tflite Used for Android mobile devices.
- edgetpu_tflite Used for <u>Edge TPU</u>
 (https://cloud.google.com/edge-tpu/) devices.
- tf saved model A tensorflow model in SavedModel format.
- tf_js A <u>TensorFlow.js</u> (https://www.tensorflow.org/js) model that can be used in the browser and in Node.js using JavaScript.
- docker Used for Docker containers. Use the params field to customize
 the container. The container is verified to work correctly on ubuntu
 16.04 operating system. See more at containers quickstart
 (https://cloud.google.com/vision/automl/docs/containers-gcs-quickstart)
- · core_ml Used for iOS mobile devices.

params

```
map (key: string, value: string)
```

Additional model-type and format specific parameters describing the requirements for the to be exported model files, any string must be up to 25000 characters long.

• For docker format: cpu_architecture - (string) "x86_64" (default). gpu_architecture - (string) "none" (default), "nvidia".

An object containing a list of "key": value pairs. Example: { "name": "wrench", "mass": "1.3kg", "count": "3" }.

Union field **destination**. Required. The destination of the output. **destination** can be only one of the following:

Fields	
gcsDestination	object (GcsDestination (https://cloud.google.com/vision/automl/docs/reference/rest/v1beta1/GcsDestination)) The Google Cloud Storage location where the model is to be written to. This location may only be set for the following model formats: "tflite", "edgetpu_tflite", "tf_saved_model", "tf_js", "core_ml". Under the directory given as the destination a new one with name "model-export", where timestamp is in YYYY-MM-DDThh:mm:ss.sssZ ISO-8601 format, will be created. Inside the model and any of its supporting files will be written.
gcrDestination	object (GcrDestination (https://cloud.google.com/vision/automl/docs/reference/rest/v1beta1/p rojects.locations.models/export#GcrDestination)) The GCR location where model image is to be pushed to. This location may only be set for the following model formats: "docker". The model image will be created under the given URI.

GcrDestination

The GCR location where the image must be pushed to.

```
JSON representation
{
    "outputUri": string
}
Fields
```

Fields		
outputUri	string	
	Required. Google Contained Registry URI of the new image, up to 2000 characters long. See	
	https://cloud.google.com/container-registry/do//cs/pushing-and-pulling#pushing_an_image_to_a_registry Accepted forms:	
	• [HOSTNAME]/[PROJECT-ID]/[IMAGE]	
	• [HOSTNAME]/[PROJECT-ID]/[IMAGE]:[TAG]	
	The requesting user must have permission to push images the project.	

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