

[Cloud AutoML Vision Object Detection](#)

AutoML Vision Object Detection Client Libraries

This page shows how to get started with the Cloud Client Libraries for the Cloud AutoML API. Read more about the client libraries for Cloud APIs, including the older Google APIs Client Libraries, in [Client Libraries Explained](https://cloud.google.com/apis/docs/client-libraries-explained) (<https://cloud.google.com/apis/docs/client-libraries-explained>).

Installing the client library

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For more information, see [Setting Up a C# Development Environment](https://cloud.google.com/dotnet/docs/setup) (<https://cloud.google.com/dotnet/docs/setup>).

```
install-package Google.Cloud.AutoML.V1 -pre
```

Setting up authentication

To run the client library, you must first set up authentication by creating a service account and setting an environment variable. Complete the following steps to set up authentication. For other ways to authenticate, see the [GCP authentication documentation](https://cloud.google.com/docs/authentication/production) (<https://cloud.google.com/docs/authentication/production>).

CLOUD CONSOLE	COMMAND LINE
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1. In the Cloud Console, go to the **Create service account key** page.
GO TO THE CREATE SERVICE ACCOUNT KEY PAGE ([HTTPS://CONSOLE.CLOUD.GOOGLE.COM/APIS](https://console.cloud.google.com/apis))
2. From the **Service account** list, select **New service account**.
3. In the **Service account name** field, enter a name.
4. From the **Role** list, select **Project > Owner**.



Note: The **Role** field authorizes your service account to access resources. You can view and change this field later by using the [Cloud Console \(https://console.cloud.google.com/\)](https://console.cloud.google.com/). If you are developing a production app, specify more granular permissions than **Project > Owner**. For more information, see [granting roles to service accounts \(https://cloud.google.com/iam/docs/granting-roles-to-service-accounts\)](https://cloud.google.com/iam/docs/granting-roles-to-service-accounts).

5. Click **Create**. A JSON file that contains your key downloads to your computer.

Provide authentication credentials to your application code by setting the environment variable **GOOGLE_APPLICATION_CREDENTIALS**. Replace **[PATH]** with the file path of the JSON file that contains your service account key, and **[FILE_NAME]** with the filename. This variable only applies to your current shell session, so if you open a new session, set the variable again.

LINUX OR MACOS

WINDOWS

```
export GOOGLE_APPLICATION_CREDENTIALS="[PATH]"
```

For example:

```
export GOOGLE_APPLICATION_CREDENTIALS="/home/user/Downloads/[FILE_NAME].json"
```

Using the client library

The following example shows how to use the client library.

C#

GO

JAVA

NODE.JS

MORE ▾

For information on how to use the client libraries with Cloud AutoML Vision Object Detection, see the following guides:

- [Managing datasets \(https://cloud.google.com/vision/automl/object-detection/docs/datasets\)](https://cloud.google.com/vision/automl/object-detection/docs/datasets)
- [Managing models \(https://cloud.google.com/vision/automl/object-detection/docs/models\)](https://cloud.google.com/vision/automl/object-detection/docs/models)
- [Evaluating models \(https://cloud.google.com/vision/automl/object-detection/docs/evaluate\)](https://cloud.google.com/vision/automl/object-detection/docs/evaluate)
- [Annotating an image \(https://cloud.google.com/vision/automl/object-detection/docs/predict\)](https://cloud.google.com/vision/automl/object-detection/docs/predict)
- [Batch image annotation \(https://cloud.google.com/vision/automl/object-detection/docs/predict-batch\)](https://cloud.google.com/vision/automl/object-detection/docs/predict-batch)

Additional resources

C#	GO	JAVA	NODE.JS	MORE ▾
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- [API Reference Documentation](https://googleapis.github.io/google-cloud-dotnet) (https://googleapis.github.io/google-cloud-dotnet)
- [Source Code](https://github.com/GoogleCloudPlatform/google-cloud-dotnet) (https://github.com/GoogleCloudPlatform/google-cloud-dotnet)
- [GitHub Issue Tracker](https://github.com/GoogleCloudPlatform/google-cloud-dotnet/issues) (https://github.com/GoogleCloudPlatform/google-cloud-dotnet/issues)
- [Stack Overflow](https://stackoverflow.com/search?q=%5Bgoogle-cloud-vision%5D+%5Bc%23%5D) (https://stackoverflow.com/search?q=%5Bgoogle-cloud-vision%5D+%5Bc%23%5D)

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