

## Step 1: Upload and label the images

lighter\_detection

Training Images

Performance

Predictions

Train

Quick Test

Settings

Help

User

Filter

Iteration

Workspace

Tags

Tagged

Untagged

Showing: all untagged images

Suggested Tags

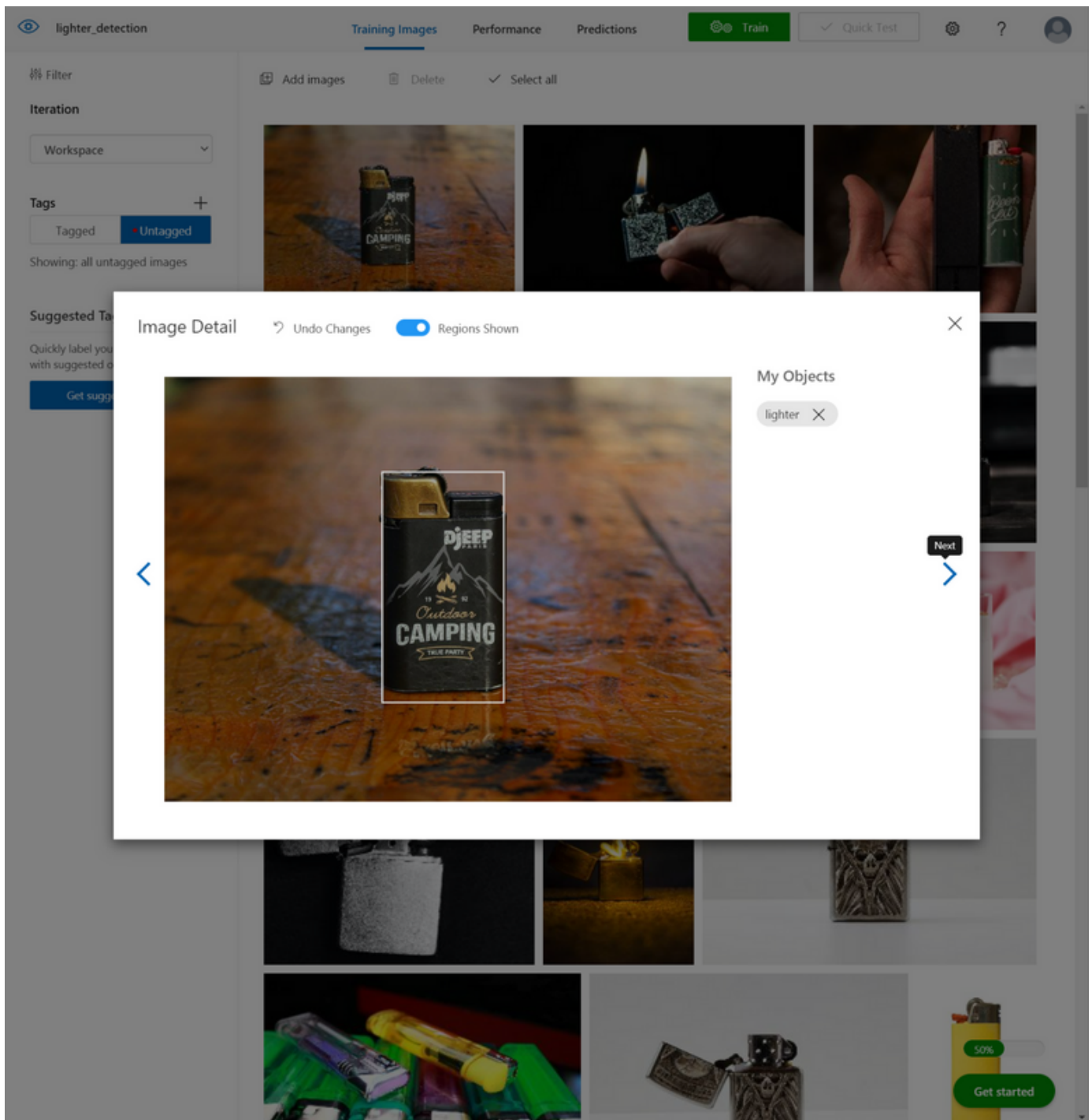
Quickly label your untagged images with suggested objects. [Learn more.](#)

Get suggested objects

Add images

Delete

Select all



## Step 2: Train Process

Performing the training process

lighter\_detection

Training ImagesPerformancePredictionsTrain

Iterations

Probability Threshold: 50%  
Overlap Threshold: 30%

Iteration 2  
Training...

Iteration 1  
Trained : 5 minutes ago with General [A1] domain

Prediction URLDeleteExport

Iteration 2

Training...

Last checked: 5/18/2022, 12:14:07 AM

The

lighter\_detection

Training ImagesPerformancePredictionsTrainQuick Test

Iterations

Probability Threshold: 50%  
Overlap Threshold: 30%

Iteration 1  
Trained : 3 minutes ago with General [A1] domain

UnpublishPrediction URLDeleteExport

Iteration 1

Finished training on 5/18/2022, 12:09:32 AM using General [A1] domain  
Iteration id: 21a240a1-b55d-4f84-8092-d0dadf5d433e  
Published as: Iteration1

Precision75.0%

Recall92.3%

mAP89.4%

Performance Per Tag

Tag	Precision	Recall	A.P.	Image count
lighter	75.0%	92.3%	89.4%	45

Step 3: Publish

×

Unpublish

🌐 Prediction URL

🗑 Delete

⬇ Export

Iteration 1

Finished training on **5/18/2022, 12:09:32 AM** using **General [A1]** domain  
Iteration id: **21a240a1-b55d-4f84-8092-d0dadf5d433e**  
Published as: **Iteration1**

Precision ⓘ

Recall ⓘ

mAP ⓘ

9.4%

How to use the Prediction API

×

If you have an image URL:

https://mycv195739-prediction.cognitiveservices.azure.com/customvision/v3.0/Pred

Set **Prediction-Key** Header to : **6126998422f54c099664d0e56275d7ad**

Set **Content-Type** Header to : **application/json**

Set Body to : **{"Url": "https://example.com/image.png"}**

If you have an image file:

https://mycv195739-prediction.cognitiveservices.azure.com/customvision/v3.0/Pred

Set **Prediction-Key** Header to : **6126998422f54c099664d0e56275d7ad**

Set **Content-Type** Header to : **application/octet-stream**

Set Body to : **<image file>**

Got it!

## Step 4: Prediction

## Using the SDK to perform the prediction

### Performing Prediction

- Using the predictor object

```
In [25]: ► prediction_key = "6126998422f54c099664d0e56275d7ad"
```

```
In [26]: ► prediction_credentials = ApiKeyCredentials(in_headers={"Prediction-key": prediction_key})  
predictor = CustomVisionPredictionClient(PREDICTION_ENDPOINT, prediction_credentials)
```

```
In [44]: ► publish_iteration_name = "Iteration1"  
project_id = "093027dc-c717-4181-8940-3ddb2d6b1fc0"
```

```
In [50]: ► test_image_path = '/home/workspace/lighter'
```

```
In [52]: ► !ls $test_image_path
```

```
lighter_test_set_1of5.jpg lighter_test_set_3of5.jpg lighter_test_set_5of5.jpg  
lighter_test_set_2of5.jpg lighter_test_set_4of5.jpg
```

```
In [47]: ► def perform_prediction(image_file_name):  
    with open(os.path.join(local_image_path, image_file_name), "rb") as image_contents:  
        results = predictor.detect_image(project_id, publish_iteration_name, image_contents.read())  
        # Display the results.  
        for prediction in results.predictions:  
            print("\t" + prediction.tag_name +  
                  "\t: {:.2f}%".format(prediction.probability * 100))
```

The prediction result

```
In [61]: ► for file in os.listdir(test_image_path):  
           print("=====")  
           print(file)  
           perform_prediction(file)
```

```
=====  
lighter_test_set_4of5.jpg  
    lighter: 95.14%  
    lighter: 45.21%  
    lighter: 2.39%  
=====  
lighter_test_set_5of5.jpg  
    lighter: 96.19%  
    lighter: 71.01%  
    lighter: 38.68%  
    lighter: 38.56%  
    lighter: 10.50%  
    lighter: 1.19%  
=====  
lighter_test_set_2of5.jpg  
    lighter: 94.13%  
    lighter: 82.01%  
    lighter: 51.68%  
    lighter: 33.99%  
    lighter: 8.47%  
    lighter: 3.47%  
    lighter: 1.56%  
    lighter: 1.17%  
    lighter: 1.07%  
=====  
lighter_test_set_3of5.jpg  
    lighter: 97.47%  
    lighter: 49.55%  
    lighter: 1.76%  
=====  
lighter_test_set_1of5.jpg  
    lighter: 99.32%  
    lighter: 2.72%  
    lighter: 2.29%  
    lighter: 1.70%
```