

assignment9-6-sdaisk

April 26, 2023

```
[126]: !pip install --upgrade azure-cognitiveservices-vision-face  
!pip install azure-cognitiveservices-vision-computervision
```

```
Requirement already satisfied: azure-cognitiveservices-vision-face in  
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (0.6.0)  
Requirement already satisfied: azure-common~=1.1 in  
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from azure-  
cognitiveservices-vision-face) (1.1.28)  
Requirement already satisfied: msrest>=0.5.0 in  
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from azure-  
cognitiveservices-vision-face) (0.7.1)  
Requirement already satisfied: certifi>=2017.4.17 in  
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from  
msrest>=0.5.0->azure-cognitiveservices-vision-face) (2022.9.24)  
Requirement already satisfied: isodate>=0.6.0 in  
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from  
msrest>=0.5.0->azure-cognitiveservices-vision-face) (0.6.1)  
Requirement already satisfied: azure-core>=1.24.0 in  
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from  
msrest>=0.5.0->azure-cognitiveservices-vision-face) (1.26.4)  
Requirement already satisfied: requests-oauthlib>=0.5.0 in  
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from  
msrest>=0.5.0->azure-cognitiveservices-vision-face) (1.3.1)  
Requirement already satisfied: requests~=2.16 in  
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from  
msrest>=0.5.0->azure-cognitiveservices-vision-face) (2.28.1)  
Requirement already satisfied: typing-extensions>=4.3.0 in  
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from azure-  
core>=1.24.0->msrest>=0.5.0->azure-cognitiveservices-vision-face) (4.3.0)  
Requirement already satisfied: six>=1.11.0 in  
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from azure-  
core>=1.24.0->msrest>=0.5.0->azure-cognitiveservices-vision-face) (1.16.0)  
Requirement already satisfied: urllib3<1.27,>=1.21.1 in  
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from  
requests~=2.16->msrest>=0.5.0->azure-cognitiveservices-vision-face) (1.26.11)  
Requirement already satisfied: idna<4,>=2.5 in  
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from  
requests~=2.16->msrest>=0.5.0->azure-cognitiveservices-vision-face) (3.3)
```

Requirement already satisfied: charset-normalizer<3,>=2 in
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from
requests~=2.16->msrest>=0.5.0->azure-cognitiveservices-vision-face) (2.0.4)

Requirement already satisfied: oauthlib>=3.0.0 in
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from requests-
oauthlib>=0.5.0->msrest>=0.5.0->azure-cognitiveservices-vision-face) (3.2.2)

Requirement already satisfied: azure-cognitiveservices-vision-computervision in
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (0.9.0)

Requirement already satisfied: msrest>=0.5.0 in
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Requirement already satisfied: isodate>=0.6.0 in
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/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from azure-
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(1.16.0)

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(2.0.4)

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Requirement already satisfied: oauthlib>=3.0.0 in
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from requests-
oauthlib>=0.5.0->msrest>=0.5.0->azure-cognitiveservices-vision-computervision)
(3.2.2)

```
[127]: from azure.cognitiveservices.vision.computervision import ComputerVisionClient
from azure.cognitiveservices.vision.computervision.models import
↳OperationStatusCodes
from azure.cognitiveservices.vision.computervision.models import
↳VisualFeatureTypes
from msrest.authentication import CognitiveServicesCredentials
from azure.cognitiveservices.vision.face import FaceClient

from array import array
import os
from PIL import Image
import sys
import time
import requests
from matplotlib.patches import Rectangle
%matplotlib inline
import matplotlib.pyplot as plt
import json
from io import BytesIO
```

```
[131]: remote_image_url = "https://raw.githubusercontent.com/Azure-Samples/
↳cognitive-services-sample-data-files/master/ComputerVision/Images/landmark.
↳jpg"
```

```
[132]: '''
Tag an Image - remote
This example returns a tag (key word) for each thing in the image.
'''

print("==== Tag an image - remote =====")
# Call API with remote image
tags_result_remote = computervision_client.tag_image(remote_image_url )

tmp = []
# Print results with confidence score
print("Tags in the remote image: ")
if (len(tags_result_remote.tags) == 0):
    print("No tags detected.")
else:
    for tag in tags_result_remote.tags:
        tmp.append(tag.name)
```

```
print("{}' with confidence {:.2f}%".format(tag.name, tag.confidence * 100))
```

```
image = Image.open(BytesIO(requests.get(remote_image_url).content))
plt.imshow(image)
plt.axis("off")
_ = plt.title(tmp, size="x-large", y=-0.1)
plt.show()
```

==== Tag an image - remote =====

Tags in the remote image:

```
'outdoor' with confidence 99.00%
'building' with confidence 98.81%
'sky' with confidence 98.21%
'stadium' with confidence 98.17%
'ancient rome' with confidence 96.16%
'ruins' with confidence 95.04%
'amphitheatre' with confidence 93.99%
'ancient roman architecture' with confidence 92.65%
'historic site' with confidence 89.55%
'ancient history' with confidence 89.54%
'history' with confidence 86.72%
'archaeological site' with confidence 84.41%
'travel' with confidence 65.85%
'large' with confidence 61.02%
'city' with confidence 56.57%
```



['outdoor', 'building', 'sky', 'stadium', 'ancient rome', 'ruins', 'amphitheatre', 'ancient roman architecture', 'historic site', 'ancient history', 'history', 'archaeological site', 'travel', 'large', 'city']

[]: