

assignment9-8-sdai5214

April 27, 2023

```
[133]: !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: 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: 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: 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: 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: 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: 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: 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: 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: 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: 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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msrest>=0.5.0->azure-cognitiveservices-vision-computervision) (1.26.4)

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-computervision) (0.6.1)

Requirement already satisfied: requests~=2.16 in
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from
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Requirement already satisfied: six>=1.11.0 in
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(1.16.0)

Requirement already satisfied: typing-extensions>=4.3.0 in
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(4.3.0)

Requirement already satisfied: urllib3<1.27,>=1.21.1 in
/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from
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(1.26.11)

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(3.3)

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/Users/sindhukare/opt/anaconda3/lib/python3.9/site-packages (from
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(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-computervision)
(3.2.2)

```
[134]: 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
```

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

```
[137]: '''
Detect Faces - remote
This example detects faces in a remote image, gets their gender and age,
and marks them with a bounding box.
'''

print("==== Detect Faces - remote =====")
# Get an image with faces
remote_image_url_faces = "https://raw.githubusercontent.com/Azure-Samples/
↳ cognitive-services-sample-data-files/master/ComputerVision/Images/faces.jpg"
# Select the visual feature(s) you want.
remote_image_features = ["faces"]
# Call the API with remote URL and features
detect_faces_results_remote = computervision_client.
↳ analyze_image(remote_image_url_faces, remote_image_features)

tmp = []
# Print the results with gender, age, and bounding box
```

```

print("Faces in the remote image: ")
if (len(detect_faces_results_remote.faces) == 0):
    print("No faces detected.")
else:
    for face in detect_faces_results_remote.faces:
        tmp.append(face.gender)
        tmp.append(face.age)
        print("{}' of age {} at location {}, {}, {}, {}".format(face.gender,
↪face.age, \
            face.face_rectangle.left, face.face_rectangle.top, \
            face.face_rectangle.left + face.face_rectangle.width, \
            face.face_rectangle.top + face.face_rectangle.height))
        plt.gca().add_patch(Rectangle((face.face_rectangle.left,face.
↪face_rectangle.top),face.face_rectangle.width, face.face_rectangle.
↪height,linewidth=1,edgecolor='r',facecolor='none'))

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

```

```

===== Detect Faces - remote =====
Faces in the remote image:
'None' of age None at location 118, 159, 212, 253
'None' of age None at location 492, 111, 582, 201
'None' of age None at location 18, 153, 102, 237
'None' of age None at location 386, 166, 467, 247
'None' of age None at location 235, 158, 311, 234
'None' of age None at location 323, 163, 391, 231

```



[None, None, None, None, None, None, None, None, None, None, None, None]

[]: