assignment9-7-sdai

April 26, 2023

```
[22]: !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: 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: isodate>=0.6.0 in
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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: 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)
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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: 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)
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(3.2.2)

```
[23]: pip install azure-cognitiveservices-vision-computervision
```

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```
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(3.2.2)
Note: you may need to restart the kernel to use updated packages.
```

```python
[24]: 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
```

```python
[25]: remote_image_url = "https://docs.microsoft.com/en-us/azure/cognitive-services/
        ↪computer-vision/images/gray-shirt-logo.jpg"
```

```python
[38]: '''
      Detect Brands - remote
      This example detects common brands like logos and puts a bounding box around␣
        ↪them.
      '''
      print("===== Detect Brands - remote =====")
      # Get a URL with a brand logo
      remote_image_url = "https://docs.microsoft.com/en-us/azure/cognitive-services/
        ↪computer-vision/images/gray-shirt-logo.jpg"
      # Select the visual feature(s) you want
      remote_image_features = ["brands"]
      # Call API with URL and features
      detect_brands_results_remote = computervision_client.
        ↪analyze_image(remote_image_url, remote_image_features)
```

```
tmp = []
print("Detecting brands in remote image: ")
if len(detect_brands_results_remote.brands) == 0:
    print("No brands detected.")
else:
    for brand in detect_brands_results_remote.brands:
        print("'{}' brand detected with confidence {:.1f}% at location {}, {},␣
 ↪{}, {}".format( \
        brand.name, brand.confidence * 100, brand.rectangle.x, brand.rectangle.
 ↪x + brand.rectangle.w, \
        brand.rectangle.y, brand.rectangle.y + brand.rectangle.h))
        tmp.append(brand.name)
        plt.gca().add_patch(Rectangle((brand.rectangle.x,brand.rectangle.
 ↪y),brand.rectangle.w, brand.rectangle.
 ↪h,linewidth=1,edgecolor='r',facecolor='none'))


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()
```

```
===== Detect Brands - remote =====
Detecting brands in remote image:
'Microsoft' brand detected with confidence 62.5% at location 58, 113, 106, 152
'Microsoft' brand detected with confidence 69.8% at location 58, 260, 86, 149
```

['Microsoft', 'Microsoft']

[ ]: