

Assignment 6

NAME: NEHA SHREE

REGISTRATION NUMBER: 19BEI0130

Develop a python code to detect any object using Haar cascade classifier.

Python Code

object_detection.py - C:\Users\Jiya\OneDrive\Desktop\assignment\assignment6\object_detection.py (3.9.6)

File Edit Format Run Options Window Help

```
import numpy as np
import cv2
# Create our body classifier
body_classifier = cv2.CascadeClassifier('haarcascade_fullbody.xml')
# Initiate video capture for video file
cap = cv2.VideoCapture('moskva.mov')
# Loop once video is successfully loaded
while cap.isOpened():

    # Read first frame
    ret, frame = cap.read()
    gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)
    # Pass frame to our body classifier
    bodies = body_classifier.detectMultiScale(gray, 1.1, 3)

    # Extract bounding boxes for any bodies identified
    for (x,y,w,h) in bodies:
        cv2.rectangle(frame, (x, y), (x+w, y+h), (0, 255, 255), 2)
        cv2.imshow('Pedestrians', frame)
        cv2.putText(frame, 'PEDESTRIANS', (x,y-10), cv2.FONT_HERSHEY_COMPLEX_SMALL, 1, (0,255,0), 1)
    if cv2.waitKey(1) == ord('q'): #13 is the Enter Key
        cap.release()
        cv2.destroyAllWindows()
        break
```

```

import numpy as np
import cv2
# Create our body classifier
body_classifier =
cv2.CascadeClassifier('haarcascade_fullbody.xml')
# Initiate video capture for video file
cap = cv2.VideoCapture('moskva.mov')
# Loop once video is successfully loaded
while cap.isOpened():

    # Read first frame
    ret, frame = cap.read()
    gray = cv2.cvtColor(frame,
cv2.COLOR_BGR2GRAY)
    # Pass frame to our body classifier
    bodies = body_classifier.detectMultiScale(gray,
1.1, 3)

    # Extract bounding boxes for any bodies
    identified
    for (x,y,w,h) in bodies:
        cv2.rectangle(frame, (x, y), (x+w, y+h), (0, 255,
255), 2)
        cv2.imshow('Pedestrians', frame)
        cv2.putText(frame,'PEDESTRIANS',(x,y-
10),cv2.FONT_HERSHEY_COMPLEX_SMALL,1,(0,
255,0),1)
        if cv2.waitKey(1) == ord('q'): #13 is the Enter Key
            cap.release()
            cv2.destroyAllWindows()
            break

```

```
*IDLE Shell 3.9.6*
File Edit Shell Debug Options Window Help
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\Jiya\OneDrive\Desktop\assignment\assignment6\object_detection.py
|
```



