Assignment – 6

K. Harshith, 19BEC0266, kanuthala.harshith2019@vitstudent.ac.in

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

Code:

```
import cv2
import datetime
face_classifier=cv2.CascadeClassifier("haarcascade_frontalface_default.xml")
eye_classifier=cv2.CascadeClassifier("haarcascade_eye.xml")
#It will read the first frame/image of the video
video=cv2.VideoCapture(0)

while True:
    #capture the first frame
    check,frame=video.read()
    gray=cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)
    cv2.imshow('Video',gray)

    #detect the faces from the video using detectMultiScale function
    faces=face_classifier.detectMultiScale(gray,1.3,5)
    eyes=eye_classifier.detectMultiScale(gray,1.3,5)

    print(faces)
```

```
    #drawing rectangle boundries for the detected face
    for(x,y,w,h) in faces:
        cv2.rectangle(frame, (x,y), (x+w,y+h), (127,0,255), 2)
        cv2.imshow('Face detection', frame)
        cv2.putText(frame, 'Face', (x,y-
10),cv2.FONT_HERSHEY_COMPLEX_SMALL, 1, (255,0,0), 4)
        #picname=datetime.datetime.now().strftime("%y-%m-%d-%H-%M")
        #cv2.imwrite(picname+".jpg",frame)

    #drawing rectangle boundries for the detected eyes
    for(ex,ey,ew,eh) in eyes:
        cv2.rectangle(frame, (ex,ey), (ex+ew,ey+eh), (127,0,255), 2)
        cv2.imshow('Face detection', frame)

    #waitKey(1)- for every 1 millisecond new frame will be captured
    Key=cv2.waitKey(1)
    if Key==ord('q'):
        #release the camera
        video.release()
        #destroy all windows
        cv2.destroyAllWindows()
        break
```

Cam0266.py - C:\Users\harsh\OneDrive\Desktop\pythonlearn\Cam0266.py (3.9.6)

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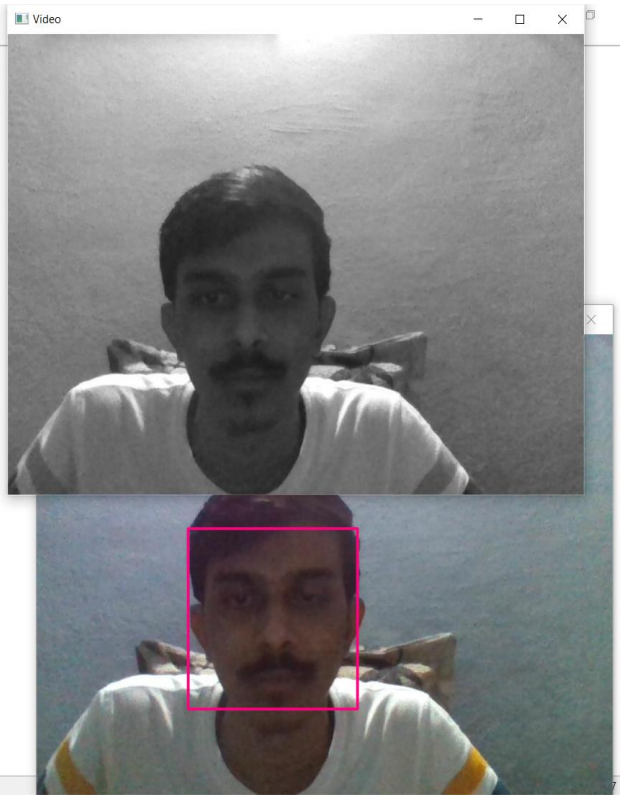

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21-07-18-20-30	✓	7/18/2021 8:30 PM	JPG File	80 KB