ASSIGNMENT-6

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

Code:

```python
import cv2

face_classifier=cv2.CascadeClassifier("haarcascade_frontalface_default.xml")
eye_classifier=cv2.CascadeClassifier("haarcascade_eye.xml")

video=cv2.VideoCapture('video1.mp4')

while True:

    check,frame=video.read()
    gray=cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)


    faces=face_classifier.detectMultiScale(gray,1.3,5)
    eyes=eye_classifier.detectMultiScale(gray,1.3,5)

    print(faces)
```

```python
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)


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)


Key=cv2.waitKey(1)
if Key==ord('q'):

    #release the camera

    video.release()

    #destroy all windows

    cv2.destroyAllWindows()

    break
```
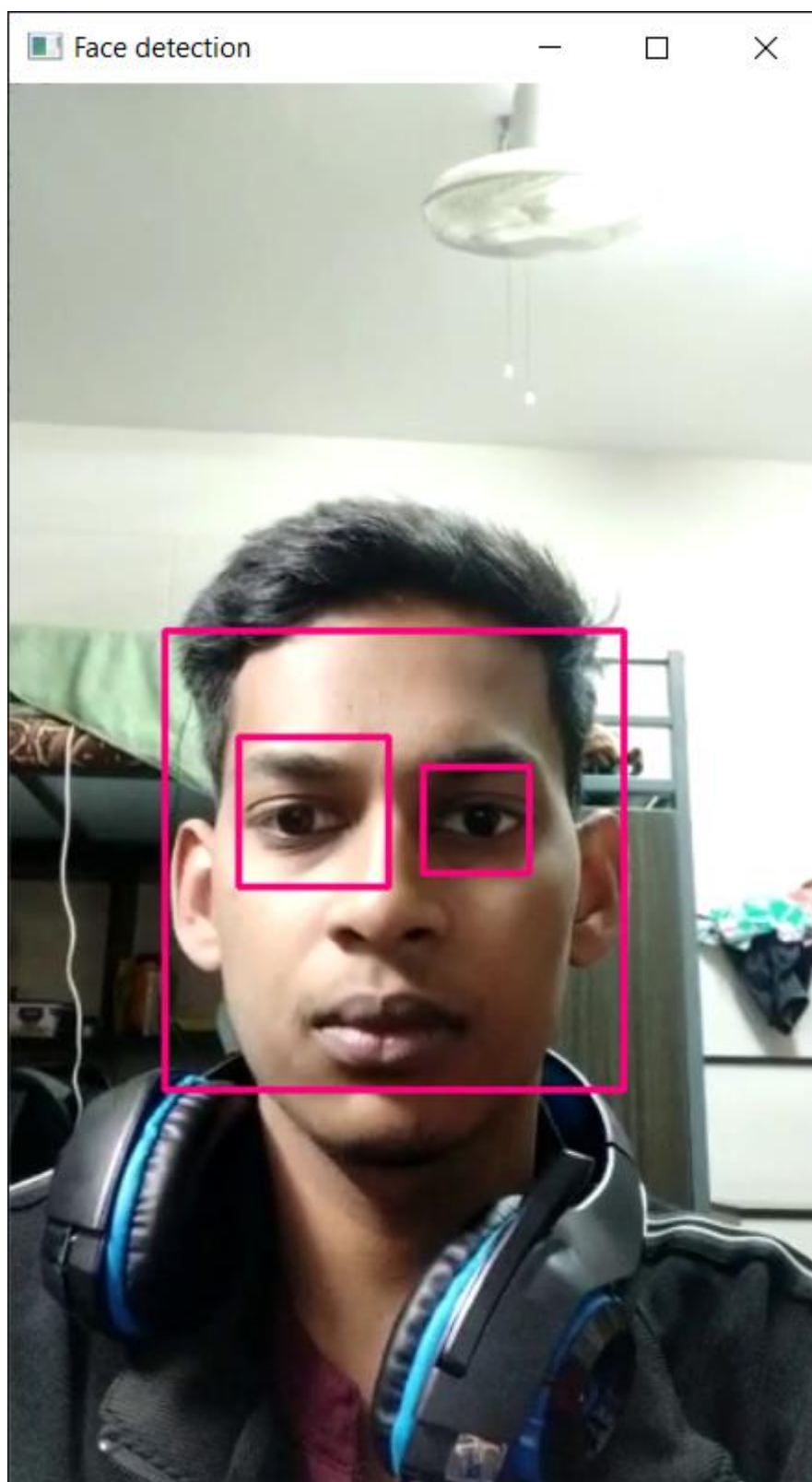
Output:

 # I attached XML files for this file in Git repo named as :

- **haarcascade_eye**
- **haarcascade_frontalface_default**