

ASSIGNMENT-6

S. Vaideeshwaran

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Develop a python code to detect any object using Haar cascade classifier. Using Haar cascade, detecting both bus and bike at the same time

Code:

```
import cv2

cas_src1 = 'Bus_front.xml'
video_src1 = 'bus1.mp4'
cas_src2 = 'two_wheeler.xml'
video_src2 = 'two_wheeler2.mp4'

cap1 = cv2.VideoCapture(video_src1)
cap2 = cv2.VideoCapture(video_src2)

bus_cas = cv2.CascadeClassifier(cas_src1)
bike_cas = cv2.CascadeClassifier(cas_src2)

while True:
    ret1, img1 = cap1.read()
    ret2, img2 = cap2.read()
    if (type(img1) == type(None) and type(img2) == type(None)):
        break

    gray1 = cv2.cvtColor(img1, cv2.COLOR_BGR2GRAY)
    gray2 = cv2.cvtColor(img2, cv2.COLOR_BGR2GRAY)

    bus = bus_cas.detectMultiScale(gray1, 1.16, 1)
    bike = bike_cas.detectMultiScale(gray2, 1.16, 1)
```

```
for (x,y,w,h) in bus:
```

```
    cv2.rectangle(img1,(x,y),(x+w,y+h),(0,0,255),2)
```

```
    cv2.imshow('video', img1)
```

```
for (x,y,w,h) in bike:
```

```
    cv2.rectangle(img2,(x,y),(x+w,y+h),(0,255,215),2)
```

```
    cv2.imshow('video2',img2)
```

```
if cv2.waitKey(33) == 27:
```

```
    break
```

```
cv2.destroyAllWindows()
```

OUTPUT:

