

Jupyter Computer vision practice Last Checkpoint: 14 hours ago

```
#Laysound("robo.mp3")


[*]: # detecting Faces
#-----

# for detecting faces convert a color image into gray-scale
# also download and paste haar-cascade frontal face classifier xml file in working directory
import cv2
face_cascade = cv2.CascadeClassifier(r"C:\Users\ANGELIN\Downloads\haarcascade_frontalface_default.xml")

img = cv2.imread(r"C:\Users\ANGELIN\Downloads\crowd1.jpg")

gray_img = cv2.cvtColor(img,cv2.COLOR_BGR2GRAY)

faces = face_cascade.detectMultiScale(gray_img,1.1,4)
for (x,y,w,h) in faces:
    cv2.rectangle(img,(x,y),(x+w,y+h),(0,255,0),2)
cv2.imshow('detected faces',img)
cv2.waitKey()
```




```
[ ]: # detecting faces in a video
import cv2
face_cascade = cv2.CascadeClassifier(r"C:\Users\ANGELIN\Downloads\haarcascade_frontalface_default.xml")
v_cap = cv2.VideoCapture(0)
#v_cap = cv2.VideoCapture("")
while True:
    img = v_cap.read()
```

Jupyter Computer vision practice Last Checkpoint: 14 hours ago

```
[4]: -1

[*]: # detecting faces in a video
import cv2
face_cascade = cv2.CascadeClassifier(r"C:\Users\ANGELIN\Downloads\haarcascade_frontalface_default.xml")
v_cap = cv2.VideoCapture(0)
#v_cap = cv2.VideoCapture("")
while True:
    img = v_cap.read()
    gray_img = cv2.cvtColor(img,cv2.COLOR_BGR2GRAY)
    faces = face_cascade.detectMultiScale(gray_img,1.1,4)
    for (x,y,w,h) in faces:
        cv2.rectangle(img,(x,y),(x+w,y+h),(0,255,0),2)
    cv2.imshow('detected faces',img)
    p=cv2.waitKey(50)
    if p==45:
        break
v_cap.release()
```



```
[ ]: #image segmentation(kmeans)
#process of partitioning the image into multiple different regions
#goal is to change the representation of image into easy and meaningful image
import cv2
import matplotlib.pyplot as plt
```