

1)

```
import cv2
imagePath="WIN_20210919_12_27_55_Pro.jpg"
cascPath = "haarcascade_frontalface_default.xml"
faceCascade = cv2.CascadeClassifier('haarcascade_frontalface_default.xml')
image=cv2.imread(imagePath)
gray =cv2.cvtColor(image,cv2.COLOR_BGR2GRAY)
faces = faceCascade.detectMultiScale(
    gray,
    scaleFactor=1.1,
    minNeighbors=5,
    minSize=(30, 30),
    flags = cv2.CASCADE_SCALE_IMAGE
)
print("Found {0} faces!".format(len(faces)))
for(x,y,w,h) in faces:
    cv2.rectangle(image,(x,y),(x+y, y+h), (0,255,0),2)
cv2.imshow("Faces found",image)
cv2.waitKey(0)
```

2)

```
import cv2
# Load the cascade
face_cascade = cv2.CascadeClassifier('haarcascade_frontalface_default.xml')

# To capture video from webcam.
cap = cv2.VideoCapture(0)
# To use a video file as input
# cap = cv2.VideoCapture('filename.mp4')

while True:
    # Read the frame
    __, img = cap.read()
    # Convert to grayscale
    gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
    # Detect the faces
    faces = face_cascade.detectMultiScale(gray, 1.1, 4)
    # Draw the rectangle around each face
    for (x, y, w, h) in faces:
        cv2.rectangle(img, (x, y), (x+w, y+h), (255, 0, 0), 2)
    # Display
    cv2.imshow('img', img)
    # Stop if escape key is pressed
    k = cv2.waitKey(30) & 0xff
    if k==27:
        break
# Release the VideoCapture object
cap.release()
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