webcam-face-detection

February 6, 2024

[ ]:
```
import cv2 as cv
```

Load the Cascade Classifier

[ ]:
```
haar_cascade = cv.CascadeClassifier('haar_face.xml')
```

Start capturing video from the webcam

[ ]:
```
cap = cv.VideoCapture(0)
```

[ ]:
```
while True:
    # Capture frame-by-frame
    ret, frame = cap.read()

    # Convert the frame to grayscale
    gray = cv.cvtColor(frame, cv.COLOR_BGR2GRAY)

    # Detect faces
    faces_rect = haar_cascade.detectMultiScale(gray, scaleFactor=1.2,␣
 ↪minNeighbors=10)

    # Draw rectangles around the faces
    for (x, y, w, h) in faces_rect:
        cv.rectangle(frame, (x, y), (x+w, y+h), (0, 255, 0), thickness=2)

    # Display the frame with detected faces
    cv.imshow('Detected Faces', frame)

    # Break the loop when 'q' is pressed
    if cv.waitKey(1) & 0xFF == ord('q'):
        break
```

Release the capture

[ ]:
```
cap.release()
cv.destroyAllWindows()
```