face-detection

February 6, 2024

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

Read the original image from the file 'cat.jpg'

[ ]:
```
img = cv.imread('../../Images/Group2.jpg')
cv.imshow('Person', img)
```

Convert the original image to grayscale

[ ]:
```
gray = cv.cvtColor(img, cv.COLOR_BGR2GRAY)
cv.imshow('Gray', gray)
```

Load the Cascade Classifier

[ ]:
```
haar_cascade = cv.CascadeClassifier('haar_face.xml')
# Detect faces
faces_rect = haar_cascade.detectMultiScale(gray, scaleFactor=1.1,␣
 ↪minNeighbors=1)# scaleFactor=1.1, minNeighbors=3
```

Print the number of faces detected

[ ]:
```
print(f'Number of faces detected: {len(faces_rect)}')
```

[ ]:
```
for(x,y,w,h) in faces_rect:
  cv.rectangle(img, (x,y), (x+w, y+h), (0,255,0), thickness=2)
```

[ ]:
```
cv.imshow('Detected Faces', img)
```

These method is useful for simple images but if you have more complex images is not the best choice These method is so sensible to images with noise

[ ]:
```
cv.waitKey(0)
```