faces-train

February 6, 2024

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

[ ]:
```
people = ['Ben Afflek', 'Elton John', 'Jerry Seinfield', 'Madonna', 'Mindy␣
 ↪Kaling']
DIR = r'C:\Users\david\Documents\openCv\Images\faces\train'
haar_cascade = cv.CascadeClassifier('../haarcascades/haar_face.xml')
```

[ ]:
```
features = []
labels = []
```

[ ]:
```
def create_train():
  for person in people:
    path = os.path.join(DIR, person)
    label = people.index(person)
    for img in os.listdir(path):
      img_path = os.path.join(path, img)
      img_aray = cv.imread(img_path)
      gray = cv.cvtColor(img_aray, cv.COLOR_BGR2GRAY)
      faces_rect = haar_cascade.detectMultiScale(gray, scaleFactor=1.1,␣
 ↪minNeighbors=4)
      for (x,y,w,h) in faces_rect:
        faces_roi = gray[y:y+h, x:x+w]
        features.append(faces_roi)
        labels.append(label)
```

[ ]:
```
create_train()
print('Training done -------')
```

[ ]:
```
features = np.array(features, dtype='object')
labels = np.array(labels)
```

[ ]:
```
face_recognizer = cv.face.LBPHFaceRecognizer_create()
```

Train the Recognizer on the features list and the labels list

[ ]:
```
face_recognizer.train(features, labels)
```

[ ]:
```
face_recognizer.save('face_trained.yml')
```

[ ]:
```
np.save('features.npy', features)
np.save('labels.npy', labels)
```