groupphotodetection210919

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from imutils import paths
import numpy as np
import argparse
import imutils
import pickle
import cv2
import os

protoPath =  "./face_detection_model/deploy.prototxt"
modelPath = "./face_detection_model/res10_300x300_ssd_iter_140000.caffemodel"
#import libraries
import os
import cv2
import numpy#get the absolute path of the working directory
dir_path = "./groupphoto/group1"
dir_path1= "./groupphoto/group1Output"
#create the Output folder if it doesn't already exist

model = cv2.dnn.readNetFromCaffe(protoPath, modelPath)

for file in os.listdir(dir_path):
      #split the file name and the extension into two variales
    filename, file_extension = os.path.splitext(file)#check if the file␣
 ↪extension is .png,.jpeg or .jpg
    if (file_extension in ['.png','.jpg','.jpeg']):
        #read the image using cv2
        count = 0
        image = cv2.imread(dir_path+"/"+file)#accessing the image.shape tuple␣
 ↪and taking the elements
        (h, w) = image.shape[:2]#get our blob which is our input image
        blob = cv2.dnn.blobFromImage(cv2.resize(image, (300, 300)), 1.0, (300,␣
 ↪300), (104.0, 177.0, 123.0))
        #input the blob into the model and get back the detections
        model.setInput(blob)
        detections = model.forward()
```

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       #Iterate over all of the faces detected and extract their start and end␣
↪points

       for i in range(0, detections.shape[2]):
           box = detections[0, 0, i, 3:7] * numpy.array([w, h, w, h])
           (startX, startY, endX, endY) = box.astype("int")
           confidence = detections[0, 0, i, 2]
           #if the algorithm is more than 16.5% confident that the     ␣
↪detection is a face, show a rectangle around it
           if (confidence > 0.165):
               cv2.rectangle(image, (startX, startY), (endX, endY), (0, 255,␣
↪0), 2)
               count = count + 1    #save the modified image to the Output␣
↪folder
       cv2.imwrite('./groupphoto/group1output/' + file, image)    #print out a␣
↪success message
   print("Face detection complete for image "+ file + " ("+ str(count) +")␣
↪faces found!")
```