# -\*- coding: utf-8 -\*-

# import 进openCV的库

import cv2

import os

import time

from wxpy import \*

"""

树莓派打造智能看门狗

sudo pip3 install opencv-python

sudo pip3 install wechat\_sender

"""

# 登录微信

bot = Bot()

my\_friend = bot.friends().search('监控狗')[0]

# 调用摄像头检测人脸并截图

def camera(window\_name, path\_name):

# Linux 不显示图形界面

# cv2.namedWindow(window\_name)

# 视频来源，来自USB摄像头

cap = cv2.VideoCapture(0)

# 告诉OpenCV使用人脸识别分类器

classfier = cv2.CascadeClassifier(os.getcwd()+"/haarcascade/haarcascade\_frontalface\_alt.xml")

# 识别出人脸后要画的边框的颜色，RGB格式, color是一个不可增删的数组

color = (0, 255, 0)

num = 0

while cap.isOpened():

ok, frame = cap.read() # 读取一帧数据

if not ok:

break

# 将当前桢图像转换成灰度图像

grey = cv2.cvtColor(frame, cv2.COLOR\_BGR2GRAY)

# 人脸检测，1.2和2分别为图片缩放比例和需要检测的有效点数

faceRects = classfier.detectMultiScale(grey, scaleFactor=1.2, minNeighbors=3, minSize=(32, 32))

if len(faceRects) > 0: # 大于0则检测到人脸

for faceRect in faceRects: # 单独框出每一张人脸

x, y, w, h = faceRect

num = num+1

# 将当前帧保存为图片

img\_name = "%s/%d.jpg" % (path\_name, num)

image = frame[y - 10: y + h + 10, x - 10: x + w + 10]

cv2.imwrite(img\_name, image, [int(cv2.IMWRITE\_PNG\_COMPRESSION), 9])

print("有人来了~~~")

alarm(num)

# 延迟 60s，不要太频繁的发送，知道来了就可以了

time.sleep(60)

# 画出矩形框

cv2.rectangle(frame, (x - 10, y - 10), (x + w + 10, y + h + 10), color, 2)

# 显示当前捕捉到了多少人脸图片了

font = cv2.FONT\_HERSHEY\_SIMPLEX

cv2.putText(frame, 'num:%d/1000' % (num), (x + 30, y + 30), font, 1, (255, 0, 255), 4)

# 显示图像 Linux 下注释掉即可

# cv2.imshow(window\_name, frame)

c = cv2.waitKey(10)

if c & 0xFF == ord('q'):

break

# 释放摄像头并销毁所有窗口

cap.release()

cv2.destroyAllWindows()

def alarm(num):

my\_friend.send('有人闯进卧室了!')

my\_friend.send\_image(os.getcwd()+"/dog/"+str(num)+".jpg")

if \_\_name\_\_ == '\_\_main\_\_':

camera("watchdog", os.getcwd()+"/dog")

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