def test\_img\_capture():

window.destroy()

img\_counter = 0

if(True):

cam = cv2.VideoCapture(0)

cv2.namedWindow("Face Recognition")

while True:

ret, frame = cam.read()

if not ret:

print("failed to grab frame")

break

cv2.imshow("Face Recognition", frame)

k = cv2.waitKey(1)

if k % 256 == 32:

# SPACE pressed

img\_name = "test.jpg"

cv2.imwrite(os.path.join('test', img\_name), frame)

print("{} written!".format(img\_name))

print("Closing now")

img\_counter += 1

break

cam.release()

cv2.destroyAllWindows()

test\_svm()

def train\_img\_capture():

cam = cv2.VideoCapture(0)

cv2.namedWindow("Face Training")

img\_counter = 0

file\_name = ''

file\_name= simpledialog.askstring(title="Face Recognition",prompt="What's your Name?:")

window = Tk()

window.withdraw()

os.mkdir("train/"+file\_name)

while True:

ret, frame = cam.read()

if not ret:

print("failed to grab frame")

break

cv2.imshow("Face Training", frame)

k = cv2.waitKey(1)

if k%256 == 27:

# ESC pressed

print("Escape hit, closing...")

break

elif k%256 == 32:

# SPACE pressed

img\_name = file\_name+"\_{}.jpg".format(img\_counter)

cv2.imwrite(os.path.join("train/"+file\_name, img\_name), frame)

print("{} written!".format(img\_name))

img\_counter += 1

cam.release()

cv2.destroyAllWindows()

window.destroy()

def display\_name(list\_name):

window=Tk()

label = Label(window, text="Faces Recognized")

listbox = Listbox(window, width=50)

label.pack()

listbox.pack(fill=BOTH, expand=1) # adds listbox to window

for row in list\_name:

listbox.insert(END, row) # one line for loop

window.mainloop()

window=Tk()

window.config(width=300, height=300,padx=20,pady=50)

label = Label(

window, text='WELCOME TO FACE RECOGNITION. SELECT AN OPTION BELOW:\n',font=font.Font(size=16))

label.pack()

button = Button(window, text="Train",command=train\_img\_capture,width=20,bg="red",fg="white",pady=10)

button['font']=font.Font(size=16)

button.pack()

label = Label(window, text='\n')

label.pack()

button = Button(window, text="Test", command=test\_img\_capture,width=20,bg="#0052cc",fg="white",pady=10)

button['font']=font.Font(size=16)

button.pack()

label=Label(window,text="\nInstructions\n1).In Train Mode, enter your name and then press SPACEBAR to capture images. Hit ESC when done.\n2).In Test Mode, press SPACEBAR to capture image and display detected face",font=font.Font(size=14))

label.pack()

window.mainloop()