CÓDIGO INTELIGENCIA ARTIFICIAL RECONOCIMIENTO BILLETES

import cv2

import numpy as np

import imutils

import os

Datos = 'n'

if not os.path.exists(Datos):

print('Carpeta creada: ', Datos)

os.makedirs(Datos)

cap = cv2.VideoCapture(1,cv2.CAP\_DSHOW)

x1, y1 = 200, 100

x2, y2 = 350, 350

count = 0

while True:

ret, frame = cap.read()

if ret == False: break

imAux = frame.copy()

cv2.rectangle(frame,(x1,y1),(x2,y2),(255,0,0),2)

objeto = imAux[y1:y2,x1:x2]

objeto = imutils.resize(objeto, width=38)

# print(objeto.shape)

k = cv2.waitKey(1)

if k == ord('s'):

cv2.imwrite(Datos+'/objeto\_{}.jpg'.format(count),objeto)

print('Imagen almacenada: ', 'objeto\_{}.jpg'.format(count))

count = count + 1

if k == 27:

break

cv2.imshow('frame',frame)

cv2.imshow('objeto',objeto)

cap.release()

cv2.destroyAllWindows()

OBJ.

import cv2

cap = cv2.VideoCapture(0,cv2.CAP\_DSHOW)

billete2000= cv2.CascadeClassifier('2000.xml')

billete10000= cv2.CascadeClassifier('10000.xml')

while True:

ret,frame = cap.read()

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

bi2000 = billete2000.detectMultiScale(gray,

scaleFactor = 5,

minNeighbors = 91,

minSize=(70,78))

bi10000 = billete10000.detectMultiScale(gray,

scaleFactor = 5,

minNeighbors = 91,

minSize=(70,78))

for (x,y,w,h) in bi2000:

cv2.rectangle(frame, (x,y),(x+w,y+h),(0,255,0),2)

cv2.putText(frame,'2000 PESOS',(x,y-10),2,0.7,(0,255,0),2,cv2.LINE\_AA)

cv2.imshow('frame',frame)

for (x,y,w,h) in bi10000:

cv2.rectangle(frame, (x,y),(x+w,y+h),(0,255,0),2)

cv2.putText(frame,'10000 PESOS',(x,y-10),2,0.7,(0,255,0),2,cv2.LINE\_AA)

cv2.imshow('frame',frame)

if cv2.waitKey(1) == 27:

break

cap.release()

cv2.destroyAllWindows()