Vehicle detection

The objective of the program given is to detect object of interest(Car) in video frames and to keep tracking the same object. This is an

Make sure that numpy is running in your python.

* + Put the cars.xml file in the same folder.

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| # OpenCV Python program to detect cars in video frame  # import libraries of python OpenCV  import cv2    # capture frames from a video  cap = cv2.VideoCapture('video.avi')    # Trained XML classifiers describes some features of some object we want to detect  car\_cascade = cv2.CascadeClassifier('cars.xml')    # loop runs if capturing has been initialized.  while True:      # reads frames from a video      ret, frames = cap.read()        # convert to gray scale of each frames      gray = cv2.cvtColor(frames, cv2.COLOR\_BGR2GRAY)          # Detects cars of different sizes in the input image      cars = car\_cascade.detectMultiScale(gray, 1.1, 1)        # To draw a rectangle in each cars      for (x,y,w,h) in cars:          cv2.rectangle(frames,(x,y),(x+w,y+h),(0,0,255),2)       # Display frames in a window     cv2.imshow('video2', frames)        # Wait for Esc key to stop      if cv2.waitKey(33) == 27:          break    # De-allocate any associated memory usage  cv2.destroyAllWindows() |