import cv2

# Load the pre-trained car classifier

car\_cascade = cv2.CascadeClassifier('haarcascade\_car.xml')

# Open a video capture stream (you can use 0 for webcam or a video file path)

cap = cv2.VideoCapture('video.mp4')

while True:

# Read a frame from the video stream

ret, frame = cap.read()

if not ret:

break

# Convert the frame to grayscale

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

# Detect cars in the frame

cars = car\_cascade.detectMultiScale(gray, scaleFactor=1.1, minNeighbors=5, minSize=(25, 25))

# Draw rectangles around detected cars

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

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

# Display the frame with car detections

cv2.imshow('Car Detection', frame)

# Press 'q' to exit the program

if cv2.waitKey(1) & 0xFF == ord('q'):

break

# Release the video capture and close the OpenCV windows

cap.release()

cv2.destroyAllWindows()