DYNAMIC DEVELOPERS

' WATCH BOT '

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DYNAMIC DEVELOPERS

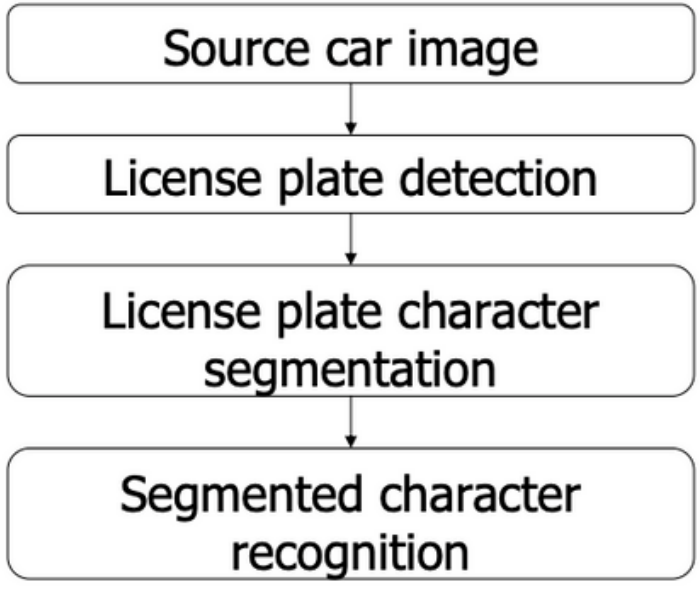
INTRODUCTION

- ARTIFICIAL INTELLIGENCE
- PYTHON

OBJECTIVE

Detecting a number plate of a car for various purposes

PROBLEM STATEMENT



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REVIEW

We used YOLO(You look only once) for the help of object detection. YOLO trains on full images and directly optimizes detection performance. We used a predefined data set called Resnet-Coco(Common objects in context.

We later pass a car image or a video to get the car image. We grayscale the image. Grayscaling removes all color information, leaving only the luminance of each pixel. Afterwards we threshold the image.

Afterwards we read each image character in the number plate and convert each character to a binary image.The 2D array of each image is flattened because the machine learning. classifier requires that each sample is a 1D array therefore the 20*20 image becomes 1*400 Image thresholding is a simple, yet effective, way of partitioning an image into a foreground and background. This image analysis technique is a type of image segmentation that isolates objects by converting grayscale images into binary images.
We then invert the image by converting it into a numpy array.

The invert was done so as to convert the black pixel to white pixel and vice versa.The next two steps are based on the assumptions that the width of a license plate should be between 5% and 15% of the license plate,and height should be between 35% and 60%.

DATA ANALYSIS & DATA MODELING

- We have used YOLO for object detection which has been widely used before.We did find a few articles on the net at towardsdatascience.com and few of the ideas is based on the ANPR(Automatic number plate recognition) system.

THANK YOU!

ANY QUERIES?