**Vehicle Tag Recognition**

**Introduction:**

The purpose of this project is to identify a tag from a car photo and translate it to characters into a text file.

**Member:**

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**Configure the environment:**

We are using Python2.7 and Opencv3.1.0.

**Steps：**

1. Car Tag Extraction
2. Grayscale: is a three-channel RGB color image into a single channel grayscale for the next image processing to prepare.
3. Vertical Edge Detection: First of all, the figures on the tag have some very sharp edges, while the other edges are mainly vertical. Therefore, a large amount of useless information on the image can be removed by this step.
4. Adaptive Binarization Processing: Further removing the useless information in the image.
5. Morphological Treatment: By the treatment of expansion and corrosion, all of the tag number of characters can be connected together.
6. Rectangular Contour Finding and Filtering: Locate the rectangle where the tag is located.
7. Character Extraction
8. Character Matching