**CSC 442 Term Project Proposal**

1. **Names of students conducting the project:**

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1. **Title of the project:**

License plate alpha numeric extraction

1. **Project Premise:**

The project idea is to write two processes that extract the numbers and letters from a direct photo of a license plate. This will follow the structure of PA#1 and PA#2 using the QtImageLib application.

The first process will make use of template matching using the normalized correlation coefficient. To take into account the scale of an image, we will compare several different sized templates for each letter or number.

In the second process, we will invoke a generalized Hough transform to determine the shapes of the letters and numbers, also using several pre-constructed templates for each number and letter.

Each process will print to screen in a separate message box two things: the alphanumeric sequence extracted and the time to determine the sequence. Depending on the specific process selected, we will display the values of the correlation coefficients or accumulator array scaled from 0-255 for the user to see in a child window.

1. **Project Responsibilities:**

We determined that most work would be evenly collaborative throughout each function within our program. This is made possible by organizing team meetings where we can work together to find a solution. If, within the project, a specific function or task is created by a specific person, the author will be labeled in the function header.