CMPE 258 Project I
Handwritten Digits Recognition

1. Project Due:
March 18th (Thursday)

2. Submission Channel:
CANVAS

3. Submission file format and the material
(3.1) Zip file;
(3.2) your python code/programs and all necessary photos if needed to verify your code;
(3.3) readme.txt to clear define the steps to execute your program;
(3.4) 5 seconds video clips to show the execution result.

4. Project requirements:
(4.1) Input live video or video testing file;
(4.2) Perform pre-processing Computer Vision functions to localize the ROI (region of interests). Each digits should be identified as one separated ROI. You should have written 4 digits, so you should have 4 separate ROIs;
(4.3) Draw bounding box for each ROI;
(4.4) Perform processing task to read each ROI as a new image, and compute its aspect ratio (Width vs. Height), and form a new square image with the bigger value of either width or height;
(4.5) resize the square image to 28 x 28 and convert it to grey scale;
(4.6) use the sample code given in the class to identify the digit, and
(4.7) for each identify the digits, plot a caption (text) by the bounding box and show the detection result.

5. This project counts 10 points.

(End)