Assignment 1 report:

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09/10/2018

This report contains the results from Perceptron Learning model.

Figure 1 depicts the first two images of "train.txt" data in grayscale.
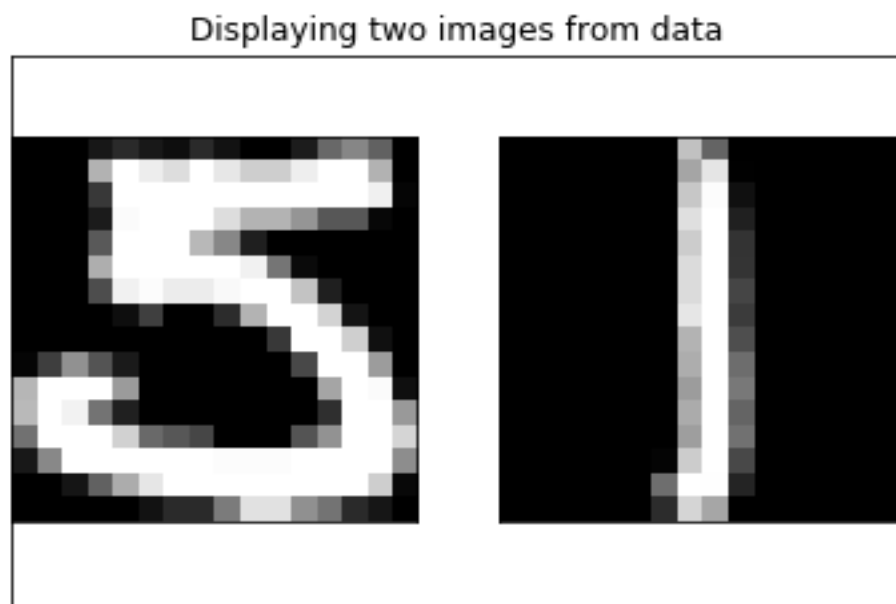
Displaying two images from data

Figure 1

Figure 2 is the plot of training data features. The x axis is the average intensity and the y axis is the symmetry of the images. The red stars are the 1 images and the blue pluses are the 5 images.
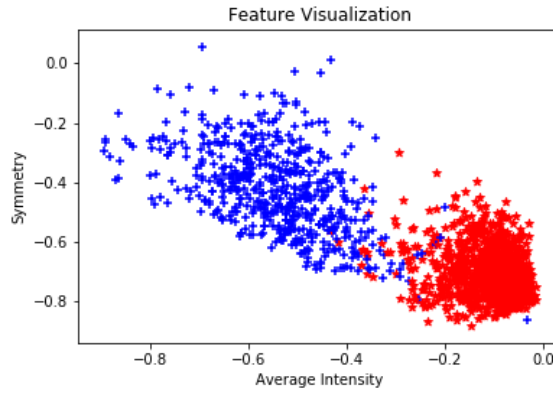

Figure 2

Figure 3 is the scatter plot of the test data and the separator. The equation of the separator is:

$$w[0]+ x_1\, w[1]+ x_2\, w[2]= 0$$

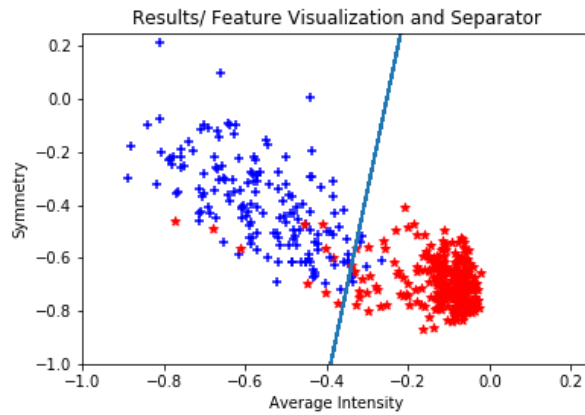Where w is the array of our hypothesis and x_1 is symmetry and x_2 is the average intensity.

Figure 3