## **Assignment 5 – Report**

Step 4. Analysis and Improvement

* We experimented with different features in Adaboost:

1. Increased the total number of stump counts being used in the model.
2. Increased the total number of random pixel pairs that we were considering for building each stump.

After testing on the given test data, using models with 1, 5, 10, 25, 50, 75 and 100 stumps (trained with 5 - fold cross validations) the following results were found:

* + Models where each stump was built after considering 100 random pixel pairs:
  + Models where each stump was built after considering 500 random pixel pairs:
  + Models where each stump was built after considering 1000 random pixel pairs:
  + Models where each stump was built after considering 1500 random pixel pairs:
  + Models where each stump was built after considering 2000 random pixel pairs:

**The best accuracy for Adaboost was found to be \_% with a model of \_ stumps; where each stump was built after considering \_ random pixel pairs.**

* We also experimented with different features in Neural Network: