SFWR TECH 4DA3 Course Project  
Comparing Classifiers

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The dataset we chose is the banknote authentication Data Set. It contains four real-time attributes: 1. variance of Wavelet Transformed image(continuous). 2. skewness of Wavelet Transformed image (continuous). 3. curtosis of Wavelet Transformed image (continuous). 4. entropy of image (continuous). And the classification  
5. class (integer).

The total number of instances associated with this classifier training process is 1372, of which 1029 data points (75% of total data points) are used for training and 343 data points (25% of total data points) are used for testing purposes.

Classifier 1: Fisher’s Linear Discriminant

1. Import data from txt file
2. Split data rows into two groups: Training data(75%) and Testing data (25%)
3. Split two data groups into four sub-groups: Training data attributes, Training data class, Testing data attributes, and Testing data class
4. Use SK-learn build-in training method to train the classifier.
5. Use SK-learn build-in testing method to test the classifier.
6. Use the python time() method to record the computation time for training and testing period.

Classifier 2: Support Vector Machine