Data Science
Lab Exercise (Neural Networks)

In this lab, you are going to learn how to classify data points using neural networks. The Breast Cancer Wisconsin (wdbc.data) dataset is given and you are required to perform the following

(a) Divide data into 70% training and 30% testing

(b) Consider Neural Network with 1 hidden layer and 1 output layer

(c) Use 10 Fold CV on training data to tune parameters learning rate (0.1-1.0 with steps 0.1) and number of neurons in hidden layer (3-6 neurons). Use sigmoid as activation function

(d) Use parameters obtained in (c) to predict the Accuracy, F-measure on test data. Show ROC curve