

Machine Learning Lab, B.Tech 5th Semester (CS32)

Instructions

1. You are required to submit your assignment responses by 10.30 AM today through the Google Form that has been emailed to you.
2. There will be an evaluation for this assignment.
3. Plagiarism checking will be performed on all the submissions for this assignment. If plagiarism is detected, your assignment will not be evaluated.

Evaluation Assignment 4

Total marks:10

1. Implement singlelayer perceptron (SLP), multilayer perceptron (MLP) and K nearest neighbour classifier using in-built libraries.

Follow the below-mentioned instructions:

- a. Input: Directly from CSV file (corresponding to any dataset), Output: Directly to excel sheet
- b. Tune the hyper-parameters (report results of hyperparameter tuning in excel sheet)
- c. Check overfitting issue (report the corresponding graph for the selected model)
- d. Finally report class-wise precision, recall, accuracy and overall accuracy considering 3-fold cross validation.
- e. Analysing the reporting results (corresponding to b, c, and d) for two different datasets

Marks distribution:

- I. implementation of SLP, MLP, KNN (0.5+1+0.5)
- II. Reporting Hyperparameter tuning results for two datasets (1+1)
- III. Reporting the graphs for overfitting checking for two datasets (1+1)
- IV. Reporting the performance of the model for two datasets (1+1)
- V. Analysis of results (1+1)