



भारतीय सूचना प्रौद्योगिकी संस्थान गुवाहाटी

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY GUWAHATI

CS 360: Machine Learning Lab
Practice Assignment 7

Instructions: This is only for practice. Complete it by 12:00 PM today. Your completion will be reviewed by the Teaching Assistants.

1. Write a program to perform classification using Iris dataset using sigmoid neurons (under one vs all framework) considering 70:10:30 from train, validation, and test splits.
 - (a) Report the results of hyperparameter tuning considering validation split.
 - (b) Report the class-wise accuracy, precision, recall for training and testing samples.
2. Write a program to perform classification using Iris dataset using single-layer perceptron (SLP) (in single architecture) using sigmoid activation function. Finally report class-wise precision, recall, accuracy and overall accuracy considering 5-fold cross validation.