Homework 4 (100 points)
MATH 6333 Statistical Learning
Due Sunday 11/28/2021 by 11:59 PM CT

Problem 1: (75 points)

Upon the arrival of new seven contestants: contestant 4 performing logistic regression, contestant 5 performing LDA, contestant 6 performing QDA, contestant 7 performing naïve Bayes, contestant 8 performing support vector machine, contestant 9 performing random forest and contestant 10 performing neural network, the judge would like to reopen the contest. This time, plots of the decision boundaries are required. Please add those four methods to the contest and compare the ten contestants.

Problem 2 (From ESL): (25 points)

Ex. 11.3 Derive the forward and backward propagation equations for the cross-entropy loss function.

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