

Homework Assignment 3
Machine Learning Spring 2018
Due Wednesday, Feb. 28

Apply the following algorithms to perform classification on the 2 data sets, D1 and D2. Compare the accuracies using confusion matrices.

Algorithms

- Ridge Regression
- Logistic Regression
- Fisher's Linear Discriminant

Data Sets

D1: BF345.mat
D2: TrussDataForClass.mat
TrussLabelsForClass.mat

Data Set D1 consists of 4 classes of spectra acquired from an airplane: Grass, Red Roofs, Trees, and Gray Roofs.

The spectra are stored in the file TrussDataForClass.mat and you can think of them as a set of 51-dimensional vectors. When you load the file, you will have a cell array with 4 elements. Each element is an array of size $N_c \times 51$, where N_c is the number of samples in the class.

The class labels are stored in a cell array in the file TrussLabelsForClass