Assignment2

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1 Linear Discriminant Analysis

step 1:Loading data from iris data set, extract feature and label

step 2:Computing the scatter matrices (in-between-class and within-class scatter matrix).

step 3:Computing the eigenvectors and correspinding eigenvalues for scatter matrices.

step 4:Transforming the sample onto the new subspace via equation.

2 Generative methods vs Discriminative methods

2.1

step 1:Loading breast cancer wisconsin data set.

step 2:preprocessing data (like filtering punctuation).

step 3:using SGD and MGD implement logistic regression.

step 4:using cross-validation to get precision and accuracy.

2.2

step 1:Loading breast cancer wisconsin data set.

step 2:Preprocessing data (like filtering punctuation).

step 3:Getting feature and label from data set.

step 4:Calculating mean and Gaussian probability density function

step5:Doing prediction and calculating accuracy.

3 Naive Bayes

step 1:Loading two txt files.

step 2:Creating vector list

step 3:Creating naive bayes classification. In naive bayes classification we input two files and get two condition probability vector

step 4:Testing and get accuracy