

Assignment 7

- What is/are the requirement(s) of LDA?
 - The requirements of LDA are that the smallest group must still be large than any predictor variables you make. The Maximum distance between the means are two groups and the minimum distance is the variation of the classes.
- How LDA is different from Logistic Regression?
 - Linear Discriminate Analysis is the linear model that can see the extraction feature in the pattern and can reduce dimensionality. On the other hand Logistic Regression is looking to predict the variable by see when the dependent is binary. It is men to describe the relationship.
- What is ROC?
 - The ROC is a curve for the Linear Discriminate Analysis that traces out the two types of error for the threshold vale because the actual threshold isn't visible.
- What is sensitivity and specificity?
 - Sensitivity is the percentage of true defaulter's fraction that is able to be identified by using the threshold value
 - Specificity is the percentage that measure the non-defaulters' performance that are also identified.
- Which is more important in your opinion?
 - It is better to get a False Positive because in that case if something is wrong and you say its right that is bad, but is something if right and you say its wrong that can lead to greater consequences that cannot be fixed.
- From the following chart, for the purpose of prediction, which is more critical?
 - The chat shows that the True N and the True P are what we are aiming for, with true pos most likely being the goal of the prediction, unless they are looking for the true positive in that case then the True N would be the goal.
 - The third best guess to be looking at the True False Neg as it is better to say that a Guilty man is innocent and get it wrong rather than saying the False Pos which would be saying an Innocent man is guilty which has far more consequences.
- 3. Calculate the prediction error from the following
 - The predicted default status error would be .0229