

### Week 3 Learning Reflection:

#### Summary:

This week we switched from learning about linear regressions, where both input and output (predictor and response) are continuous, to classifications. With classifications the response variable is a categorical variable, we only learned with the predictor variable(s) being continuous.

#### Concepts:

- Logistic classification: Similar to linear regression but uses a logistic curve as to make a more binary curve of just 0 and 1 with a transition section that does a good job of determining a binary categorical response variable from a continuous predictor.
- Discriminant classification: Effectively works backwards using the bayes theorem which allows for consistent results (everytime you get the same formula), allowing for non-consistent variance allows for a quadratic which allows for one group to sit in the middle of another group.

#### Uncertainties:

- With the logistic curve can you only have just the two groups for classification or is there some way around that?