**QTW-Week 3 Presession Submission-Logistic Regression**

**This week was all about Logistic Regression**

* **One-Hot Encoding:** The concept refers converting non-numeric data into numeric data.This works for both data features and data targets.
* Lots of implementation details on sigmoid function and loss functions
* **Sigmoid Function:** The sigmoid function takes our inputs and mimics a step function. It allows the output to be continuous, but in essence “squashes” the output to between 1 and 0.

Equation: y=

If “mx” is positive and large, then the exponential part is nearly 0, so y will be very close to 1.

* Pretty interesting discussion on multi-class logistic regression approaches
* I have no experience using multi-class logistic regression.
* Will be useful in future while doing practical implementation.

**Questions**

* What are the alternative methods to multi-class regression because it seems like multi-class logistic regression grows at a factorial pace? (Compute time seems like could become an issue)
* Elimination of variables prior to model running or some other optimization technique?
* Are there any other methods that come close to matching LR’s robustness or popularity for classification?