## Homework 5

## Hayden Morgan

## **Task 1: Conceptual Questions**

- Question 1: What is the purpose of using cross-validation when fitting a random forest model?
  - Answer here
- Question 2: Describe the bagged tree algorithm.
  - Answer here
- Question 3: What is meant by a general linear model?
  - Answer here
- Question 4: When fitting a multiple linear regression model, what does adding an interaction term do? That is, what does it allow the model to do differently as compared to when it is not included in the model?
  - Answer here
- Question 5: Why do we split our data into a training and test set?
  - Answer here

Task 2: Data Prep

Task 3: EDA

Task 4: Testing and Training

Task 5: OLS and LASSO

Task 6: Logistic Regression