Fall 2025 STA 3386 - Patrick

## Project 1

On Canvas, there is a file called Golf.csv. This data represents the season earnings, number of events played, and average score for the top 21 PGA golfers for a particular season. Follow the instructions below. Do your analysis in R using the tidymodels framework. Your work must be typed up like the homework assignments.

- 1. At the top of your assignment, be sure to include your name and the names of anyone you worked with. If you did work with anyone else (up to two other people), then only one of you needs to submit the project.
- 2. Fit a multiple regression model using Earnings as the dependent variable, and Events and Score as the independent variables. Comment on the global F-test, the individual t-tests, and the coefficient of determination.
- 3. Give the equation of the model and the equation of the fitted model for the fit in item 2.
- 4. Which of the independent variables, Events or Score, would you choose if you want only one predictor? Justify why you picked this variable.
- 5. Fit a model with the independent variable chosen in the previous step. Comment on the global F-test, the individual t-test, and the coefficient of determination.
- 6. Give the equation of the model and the equation of the fitted model for the fit in item 5.
- 7. Compare the model from item 1 and the model from item 5. Discuss which model you consider best.