Predicting New England Patriots Scores

# **McKinley Harlett Fall 2021 https://mckinleyharlett.github.io/portfolio/**

# Which Domain?

Date – the date of the game. Ranging from 2000-2020. This is important because then we can see a trend of over time.

Home Team – Which team was home. There are 32. Important because we could see if being home has a positive effect on scores.

Score\_Home - score of the home team. It is an integer.

Score\_Away – score of the away team. It is an integer.

Away Team – Which team is away. This is important because we could see if there is an impact on score whether a team is home or away.

Weather Temp – is the temperature of the start of the game. To see if weather could have an impact on the score.

Weather Wind – is the wind from the start of the game. To see if wind could have an impact on the score.

Weather Humidity – is the humidity from the start of the game. To see if humidity could have an impact on the score.

Schedule Playoff – Tells us if the game was a playoff game. It would be interesting to see if a team would score in a playoff game.

Score – created column that will hold the score of only the specific team we are going to look at.

Home\_or\_away – one column that tells us if our specific team is home or away.

# Which Data?

# <https://www.kaggle.com/tobycrabtree/nfl-scores-and-betting-data?select=spreadspoke_scores.csv>

National Football League (NFL) game results since 1966 with betting odds information since 1979. Dataset was created from a variety of sources including games and scores from a variety of public websites such as ESPN, NFL.com, and Pro Football Reference. Weather information is from NOAA data with NFLweather.com a good cross reference.

# Research Questions? Benefits? Why analyzes these data?

How can we predict football scores?

Will they be accurate?

Does Temperature influence scores?

Is being home or away influence score?

How close are the predictions to the actual score?

Benefits of getting prediction scores would be to help give football betters a better chance of winning based on my predictions.

To analyze these data points are because I believe each variable will impact the score.

# What Method?

What methods will you be using? What will those methods provide in terms of analysis? How is this useful?

I will be splitting my data into training and testing set. Once that is accomplished, I will be able to create a linear regression and then find my predicted scores. These steps will allows us to have clearer insight into what factors go into the score of the game, whether that be temperature, home or away, or the humidity. This is useful for better but also for New England to have more insight into what are some uncontrollable factors that could go into their score.

# Potential Issues?

Teams are ever changing. The predictions could be off if we have an inconsistent team. With new players coming in every year or players being traded, it will influence the prediction score, and it is very hard to keep track of all the player changes.

# Concluding Remarks

This project will be looking into how we can predict New England Patriots final scores. This team has been very consistent over the past twenty years. Which is why this project will be between the years of 2000 and 2020. The purpose of this project would be to help football betters get a better understanding and prediction of how/who they should bet for or against.