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Sport Analytics ‘24

Senior Thesis

Kicking Performance in the NFL

In the world of American football, the role of kicking performance stands as a pivotal factor influencing game outcomes and team strategies. As the National Football League (NFL) continues to grow and play games worldwide, the difference in weather conditions seen in various game locations becomes important when evaluating kicker performance. This research project dives into the impact relationships between various weather variables impact on kicking performance. Various weather factors researched by game include weather type, temperature, wind direction and speed.

The data for this project includes all regular and postseason games from the 2019 and 2020 NFL seasons. Over these two seasons, omitting preseason games, 536 games were played totaling a sample size of 4,694 kicks. This value includes both XP’s and FG’s and kicking summary statistics of the data set can be seen below.

A screenshot of a computer screen

Description automatically generated