Big Data White Paper Pitch: <https://gist.github.com/Deryck97/dff8d33e9f841568201a2a0d5519ac5e>

**Research Question:** How do factors prior to the 4th down play influence the play (Whether the 4th down is converted or not).

# THE TEASE:

# Our project aims to provide an analysis of how different types of plays in the NFL affect the first down. We will also look at environmental variables like if the game is home or away, the weather, and more to see if that affects the game strategies of the players. We will be using the dataset for 2023 since that provides us with plenty of observations and is the most recent year so it has a lot of updated data that would provide us with useful analyses.

# THE DATA:

Down: The current down 1st, 2nd, 3rd, 4th

yardln (yard line): The yard marker the team is at on the field (100 yard field)

ydstogo (yards to go): How many yards the team needs to get to the first down

Play\_type: Run, pass, kickoff, etc…

Yards\_gained: How many yards the team gained on the play.

Fourth\_down\_converted: Whether the team converted the 4th down

Fourth\_down\_failed: If they failed to complete the 4th down

Away\_score: The away teams score

Home\_score: The home teams score

Weather: Type of weather during game

# THE ANGLE:

# THE CONCLUSION: