Project Proposal

Running up the Score
NFL Running Back Salary Forecasting

Tech Titans:
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Description + Outline

Through the synthesis and analysis of several datasets encompassing NFL player position, salary, years of experience, and other player and career details, we will attempt to visualize the correlation between several of these factors, most specifically the significance of running back as a position and whether they typically function as an outlier compared to other positions. Within running back data specifically, we will be looking at correlations between years of experience and salary (which can be compared with a visualization of how years of experience affect salary), production (career rushing yard totals) and salary, etc.

Key terms:

- **Cap hit:** The player's salary for a particular season, contributing towards a team's salary cap total
- **Running back:** A position in football that typically rushes, or runs, the ball instead of throwing or catching it. For our purposes, we will be measuring prolificness of running backs through career rushing production

Questions to Answer
What determines the salaries of running backs in the NFL?
- What are the critical factors that most effectively determine running back cap hit?
  - How much does position affect salary?
    - Are there any outliers?
    - How does the mean salary by position compare to the overall average
  - How does rushing yard average affect salary?
    - Are rushing yards increasing over time?
  - How does the average number of rushing attempts affect salary?

■ How does the average number of attempts change over time?
- ○ How does years of experience affect salary?
- ○ How does age affect salary?
  - ■ Compared between positions?

Visualizations:

- Age v. Salary, scatter, regression line - Dexter
- Touchdowns v. Salary - Gerardo
- Position v. Salary, Bar graph - Gerardo
- Avg. Rush Attempts v. Salary, scatter, regression line - Tony
- Rush Attempts over time and future predictions - Tony
- Avg. Rush Yards v. Salary, scatter, regression line - Asa
- Rush Yards over time and future predictions - Asa
- Fumbles vs. Salary, scatter (Whoever finishes first)

Datasets

- **https://www.kaggle.com/datasets/f4k25g/nfl-salaries?resource=download**
- **https://www.pro-football-reference.com/**

Task Breakdown

- Gabriel² - Presentation
- Merging Datasets - Everyone
- Coding - Asa Adomatis, Tony Lockhart, Gerardo Castanos, Dexter Johnson
  - ○ Visualizations disruption broken down above