Wins from Finance? An Analysis of NFL Contract Data

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Question

- Can how an NFL team spends its money meaningfully predict its success?
- Which positions give the greatest return on investment?

Data

- Scraped from spotrac.com
- Salaries for each position group for all 32 teams
- Injured reserve, active salaries, and dead cap
- Entirety of the current Collective Bargaining Agreement

Methodology

- A 60-20-20 train, validate, and test split
- Lasso model with parameter found from the validation set.
- Final model trained on train and validate, then tested

Linear Model Insights

- 1. Active Contracts
- 2. Injured Reserve
- 3. Dead Cap
- 4. Defensive Line
- 5. Quarterback
- 6. Special Teams
- 7. Offensive Line

Error Metrics

- Training RMSE of 2.404
- Testing RMSE 2.843
- Around 0.4 difference in error over a 16 game season

