

A low-angle, upward-looking shot of several football players in dark jerseys and white helmets, huddled together. The players' faces are partially visible through the facemasks of their helmets. The background is dark, and the lighting is dramatic, highlighting the players' uniforms and helmets.

# GETTING UNDER AND OVER VEGAS NFL LINES

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# Outline

Business Problem

Data

Model

Conclusion

Future Work



# Business Problem



Vegas has advanced models used to create their lines



Both average and professional gamblers can struggle to beat Vegas



Create a program in which all someone needs is basic game data



Generate an accurate prediction based off that data



# Data

- NFL games, stadiums and teams 1978-2021
- Handling missing data
- Engineering features
- Reviewing correlations
- Prepare for modeling

# Modeling



Tree Based Model



54% Accurate

# Conclusion

Model not ready as a finished product

- Only negligibly better than guessing

Need more data on individual teams

- Passing, rushing, defense, etc.

Evident that beating Vegas at their own game is difficult

- Whole teams of people who's job is to create these models

# Future Work

- Individual team data
- More year-by-year statistics
- New modeling techniques
- Better engineering of features

# Thank you!!!



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