CAN A SIMPLE MODEL BEAT THE BOOKIES?

# EUROPEAN SOCCER PREDICTIONS WITH FIFA RATINGS

# MOTIVATION





By supplementing a model with player ratings from the FIFA video games, can I make predictions better than professional gamblers? How much money would this strategy win (or lose)?

## DATA

- 25,979 matches from 2008 to 2016
  - Keep only matches in the Premier League, Bundesliga, La Liga, Ligue 1, and Serie A
- Features include:
  - Each player who started the game
  - Weekly ratings for each player
  - Date, Home/Away, Team Ratings
- Also includes gambling lines from 10 different sites

## MODEL

- Gambling sites correctly guess the outcome of each match
   53% of the time this constitutes success
  - Ultimately, model is successful if we can turn a profit
- XGBoost
- Most important feature was an exponentially weighted moving average of previous outcomes

#### **TAKEAWAYS**

- Model is not too far away Test accuracy is 50%
  - And we turned a profit!
- Are the differences between leagues significant?
- Would a neural network perform better? Improvement in feature engineering?
- FIFA Team ratings very significant Offensive ratings seem to matter more

#### THANK YOU!

