Predicting College Basketball Games for the 2020-21 Season

Dream Team

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Problem

Predict the outcome and point differential of college basketball games

Goal

- Beat 55% Accuracy

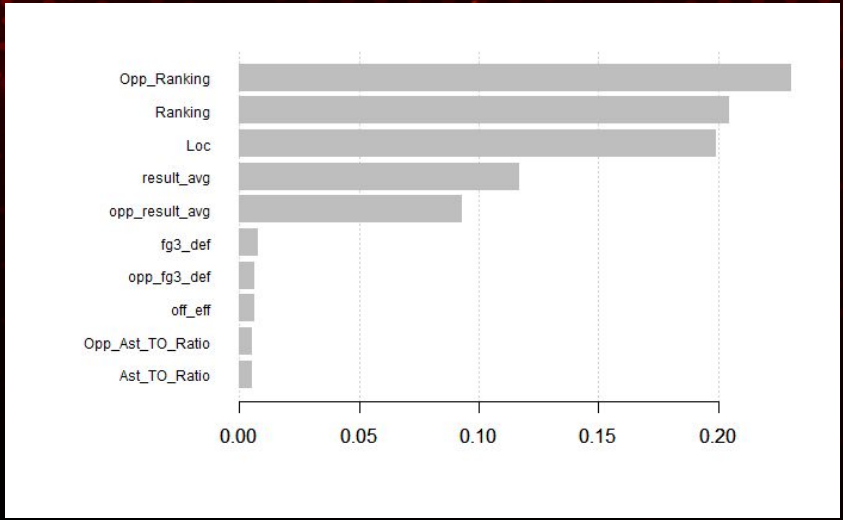
Why

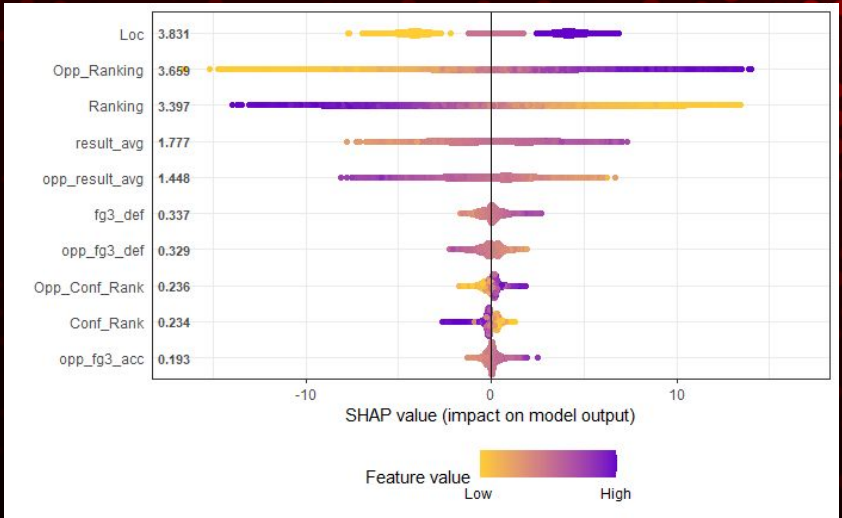
- Gambling
- Recruitment
- Load Management

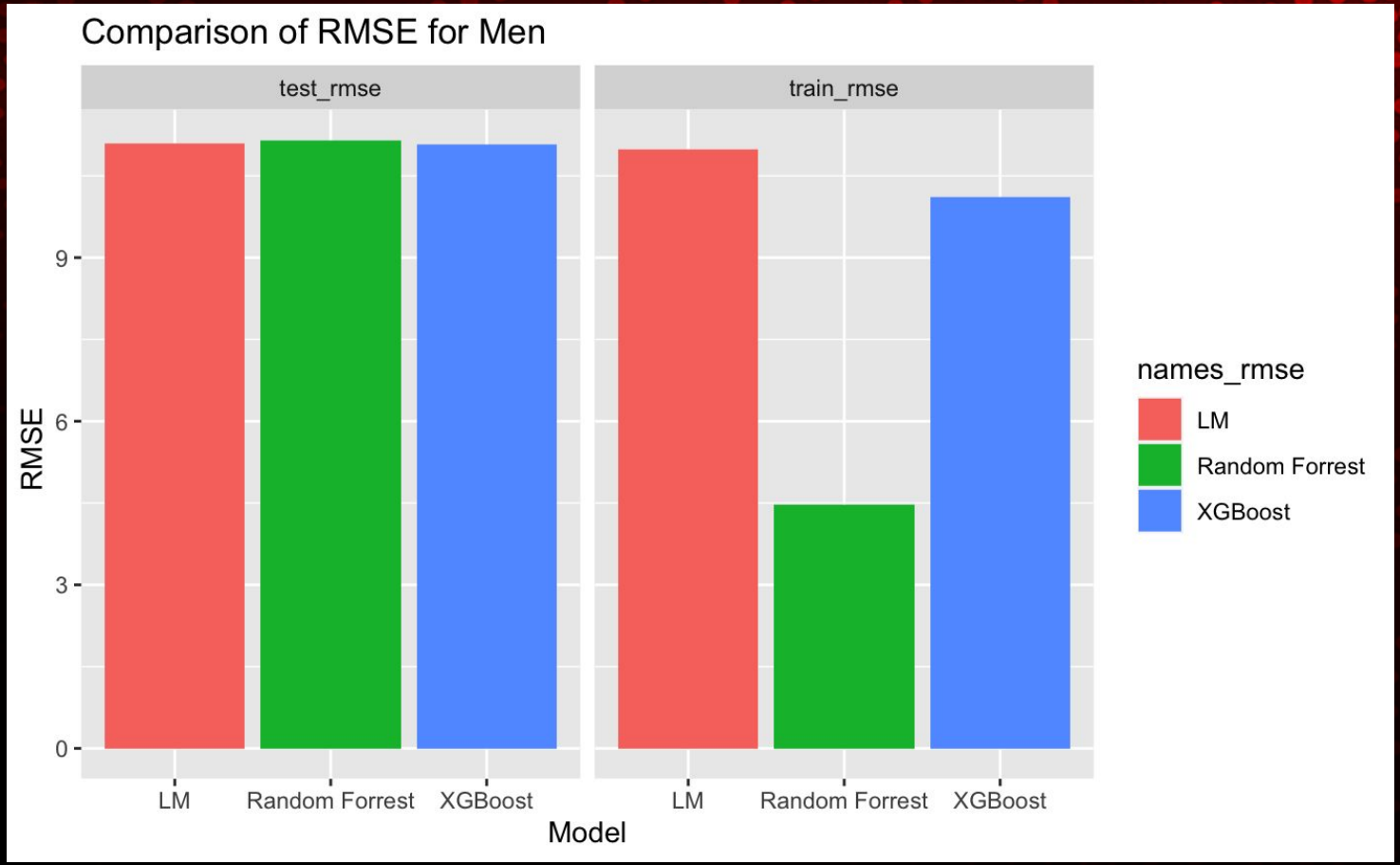
Methodology & Solution

	Accuracy		RMSE	
	Men's	Women's	Men's	Women's
Linear Model	73.1%	73.2%	11.09	13.41
Random Forest	72.75%	72.72%	11.16	13.25
XGBoost	73.2%	75.16%	11.07	12.49

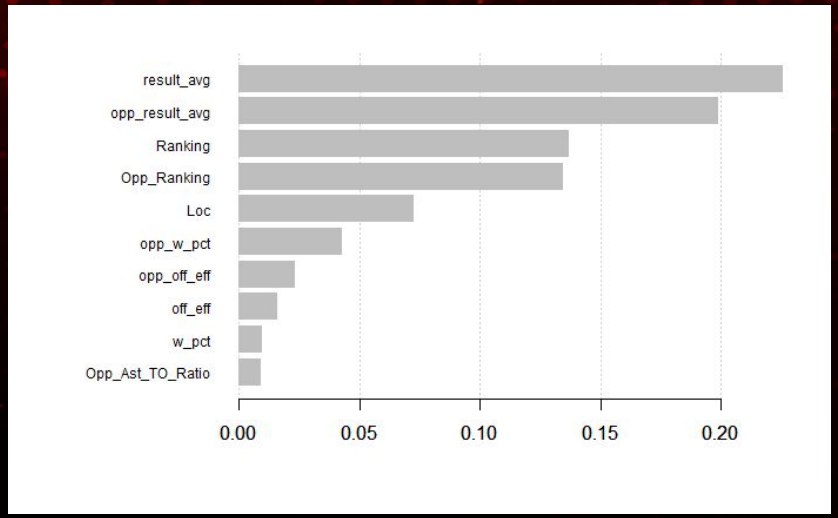
Findings - Men's Game

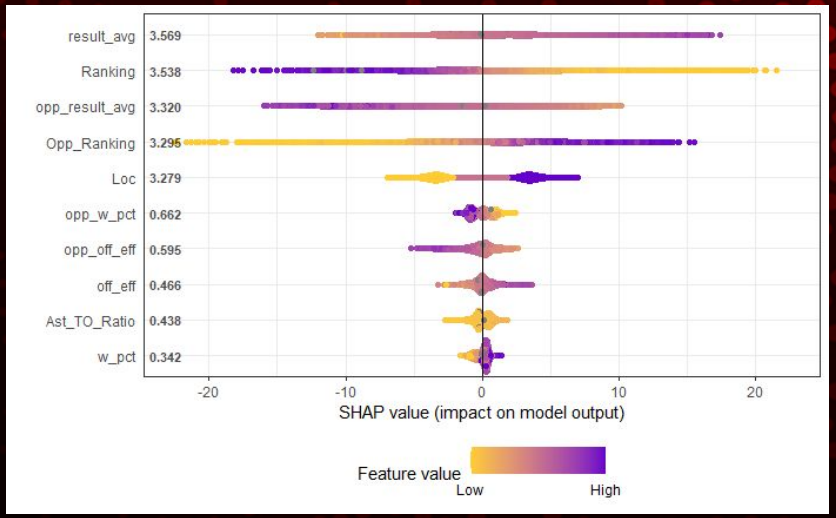


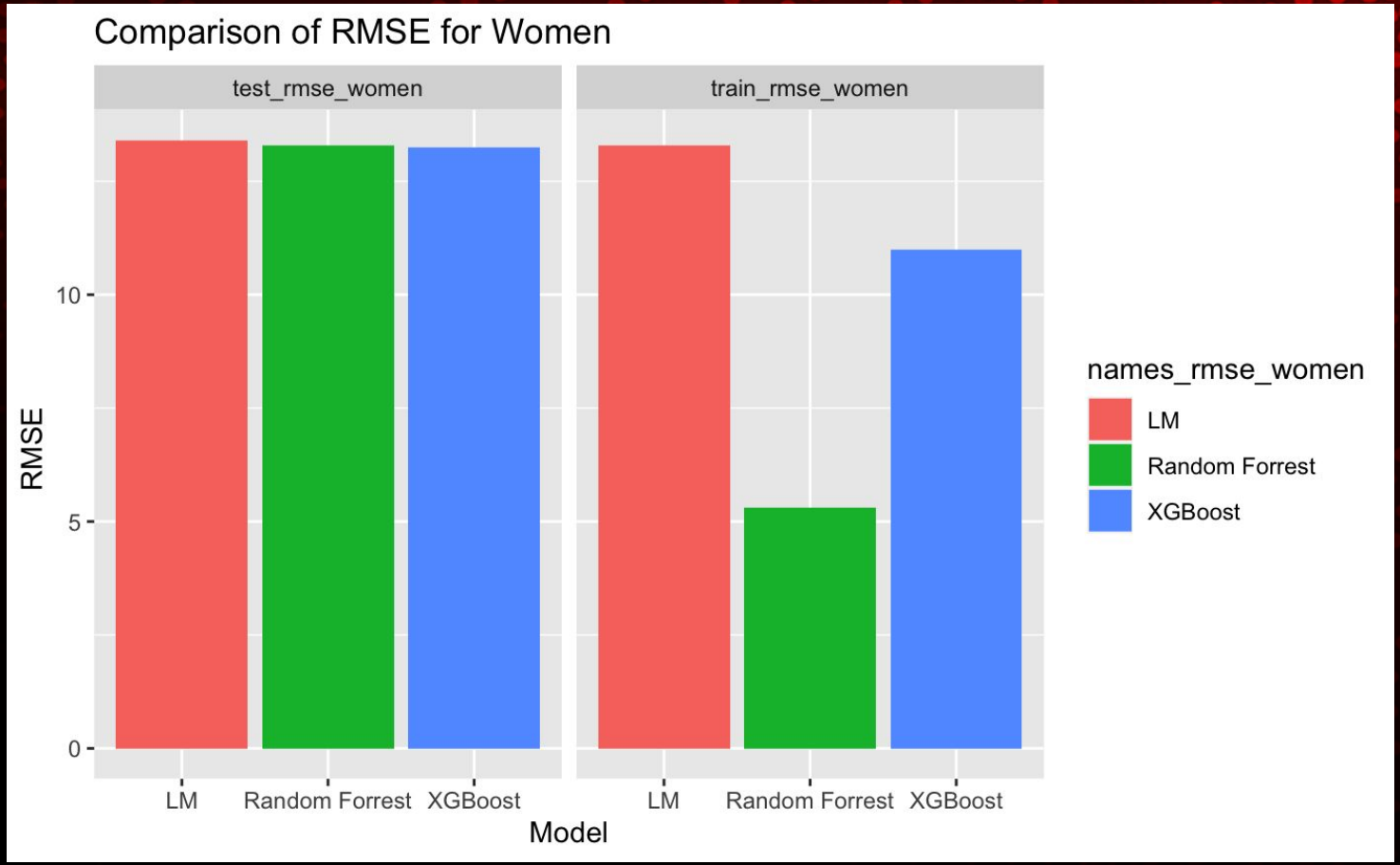


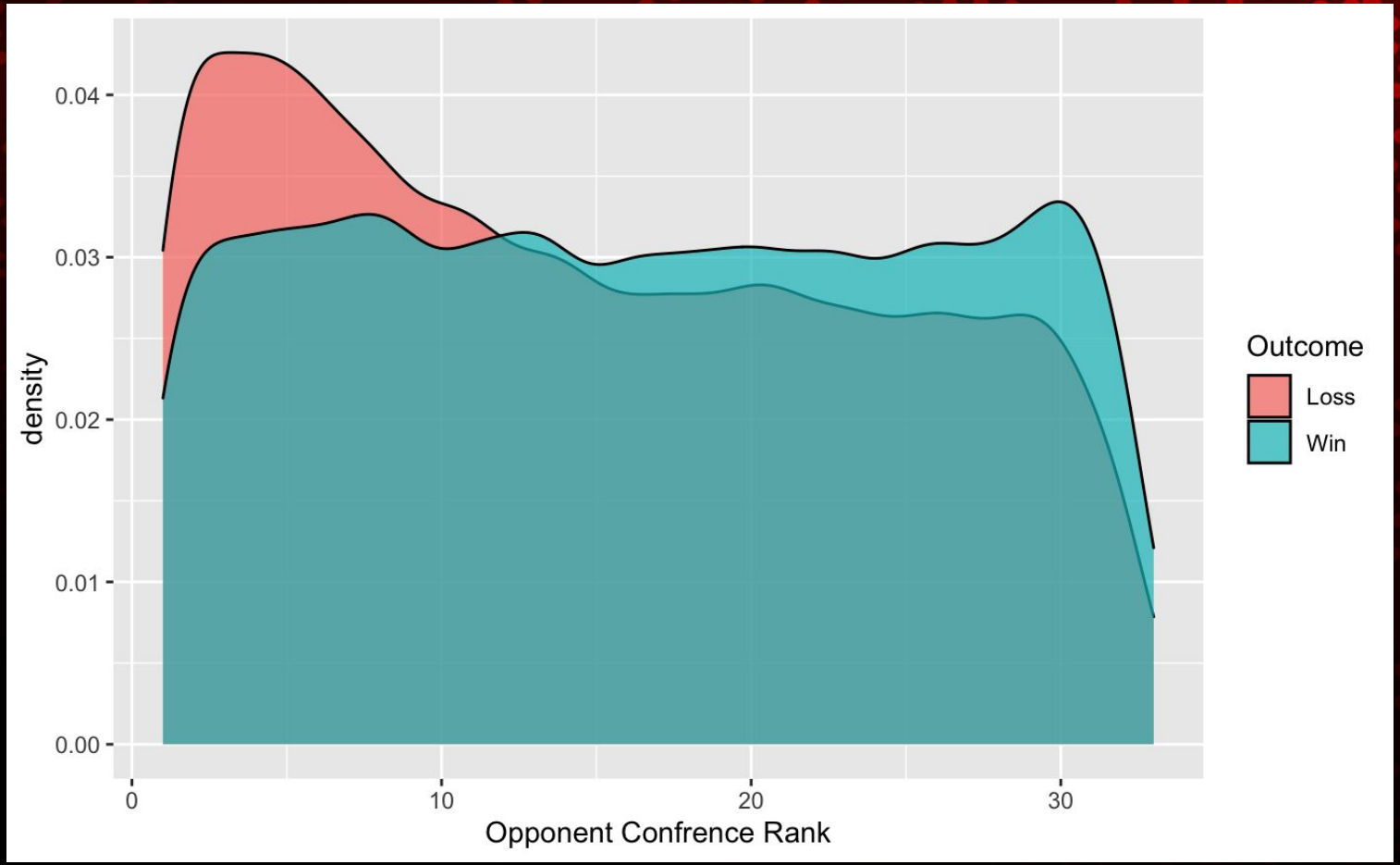

Comparison of RMSE for Men
test_rmse
train_rmse
RMSE
9
6
3
0
LM
Random Forrest
XGBoost
Model
names_rmse
LM
Random Forrest
XGBoost

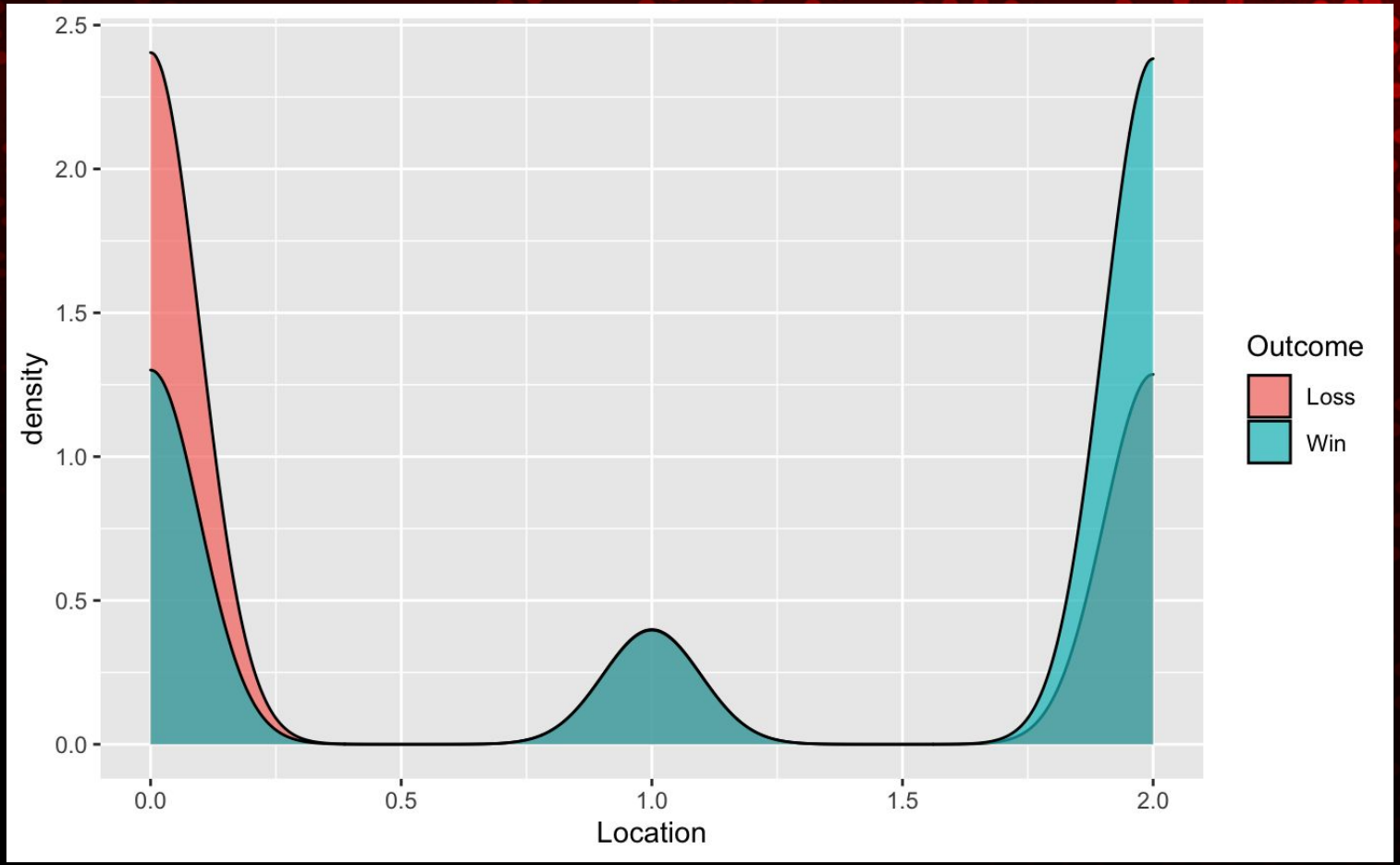
Findings - Women's Games






Comparison of RMSE for Women
test_rmse_women
train_rmse_women
RMSE
10
5
0
LM
Random Forrest
XGBoost
Model
names_rmse_women
LM
Random Forrest
XGBoost


0.04
0.03
0.02
0.01
0.00
density
0
10
20
30
Opponent Confrence Rank
Outcome
Loss
Win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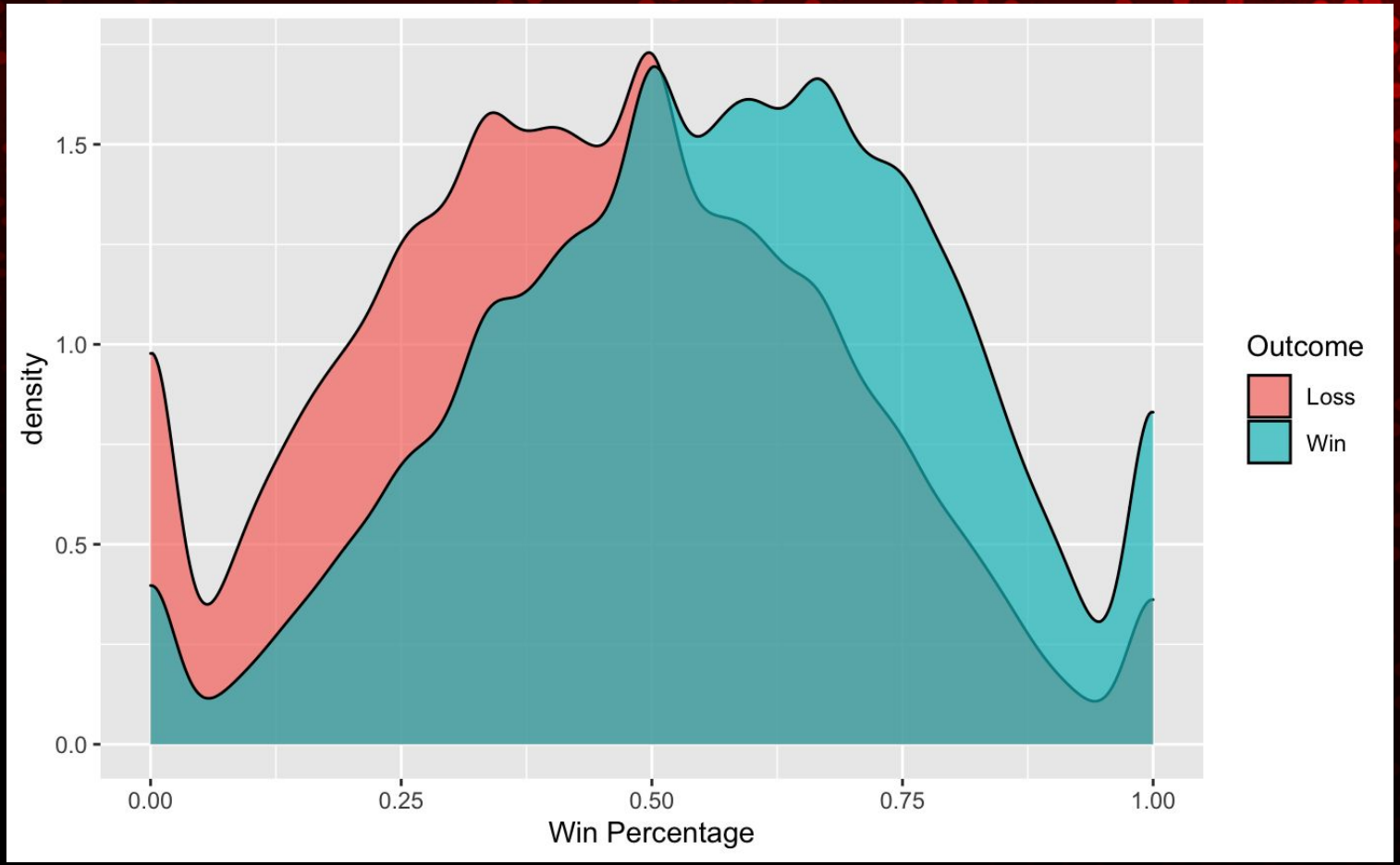
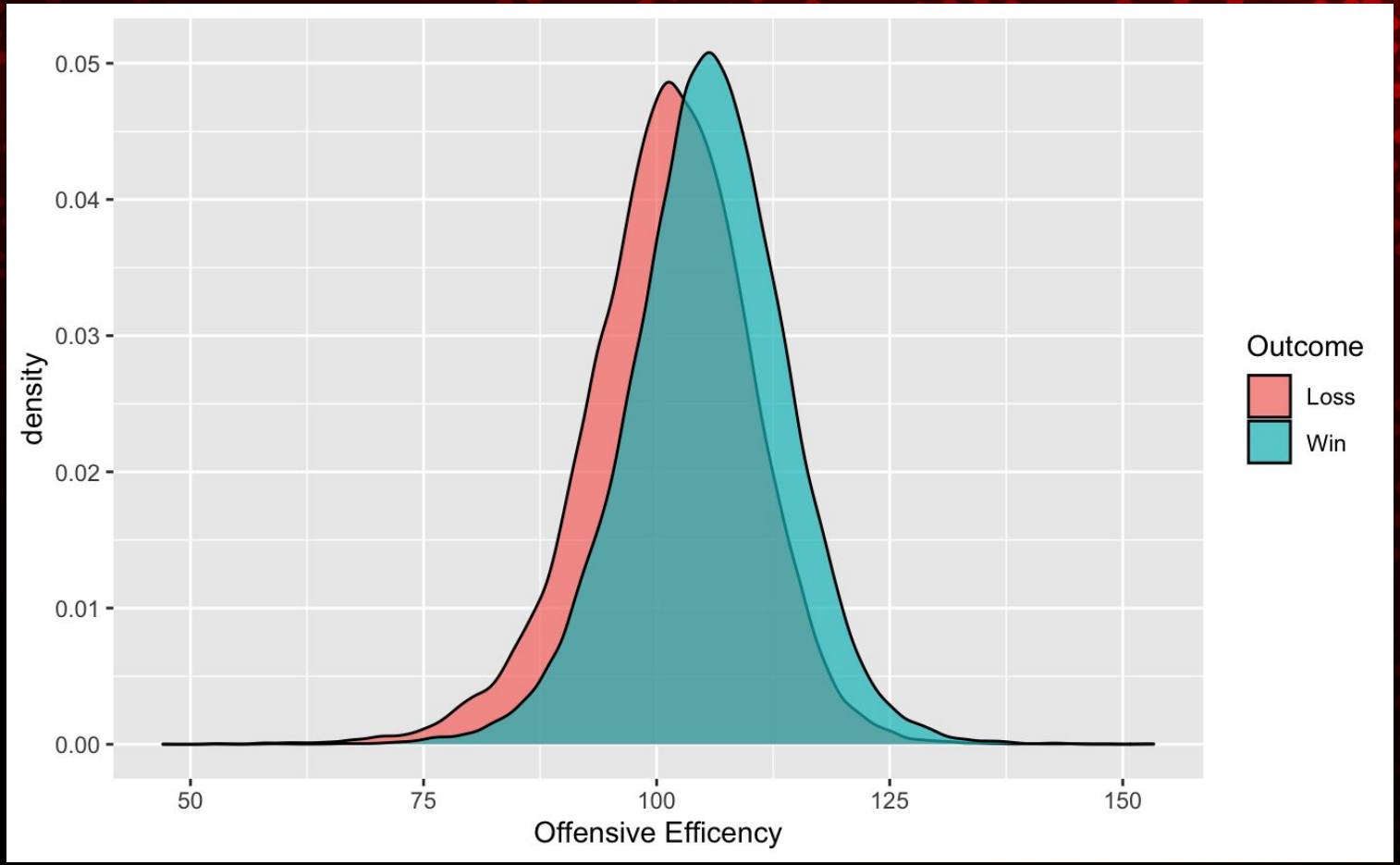
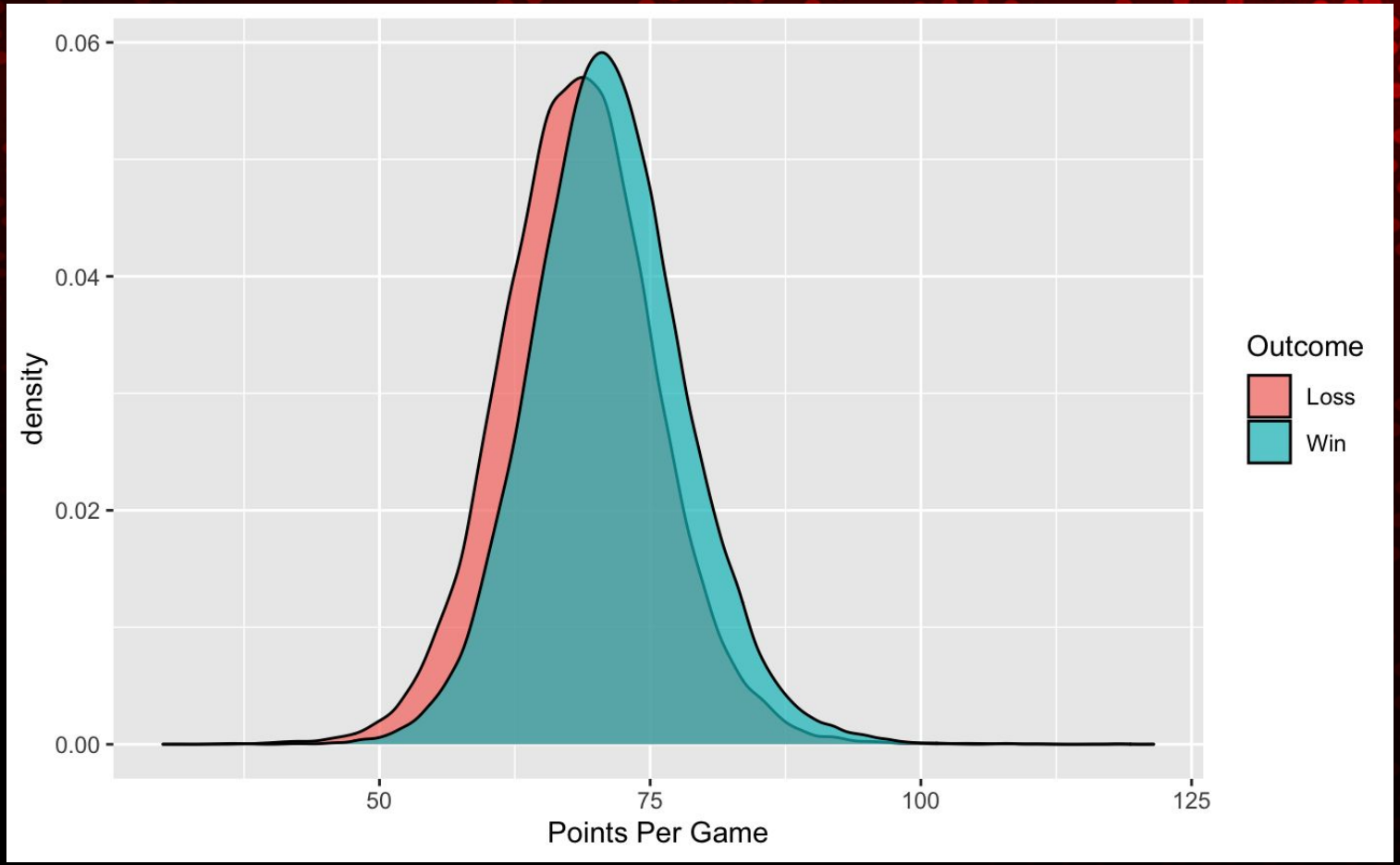
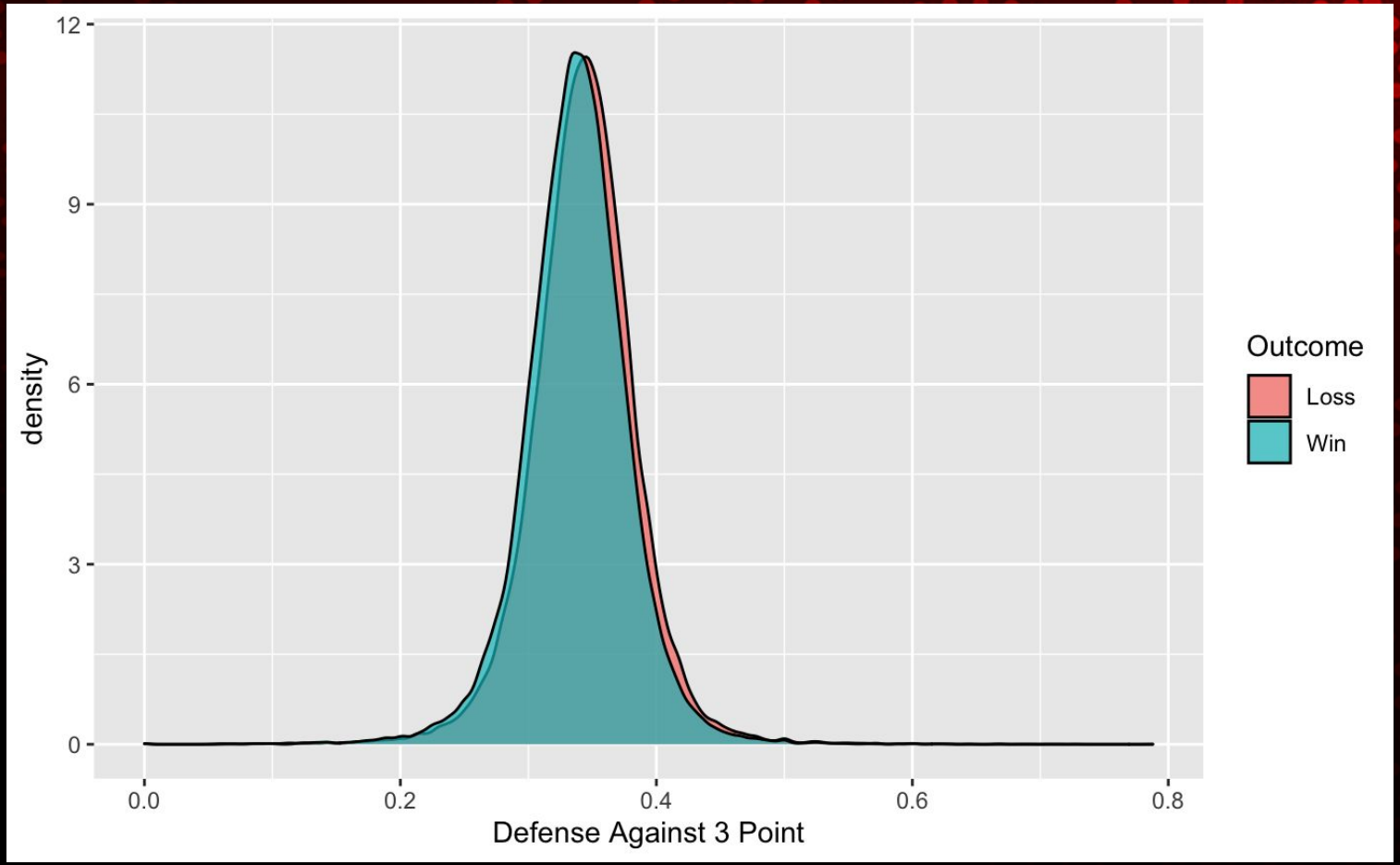
1.5
1.0
0.5
0.0
density
0.0
0.5
1.0
1.5
2.0
Location
Outcome
Loss
Win


1.5
1.0
0.5
0.0
density
0.00
0.25
0.50
0.75
1.00
Win Percentage
Outcome
Loss
Win


0.05
0.04
0.03
0.02
0.01
0.00
density
50
75
100
125
150
Offensive Efficency
Outcome
Loss
Win


0.06
0.04
0.02
0.00
density
50
75
100
125
Points Per Game
Outcome
Loss
Win


12
9
6
3
0
density
0.0
0.2
0.4
0.6
0.8
Defense Against 3 Point
Outcome
Loss
Win

Shiny
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