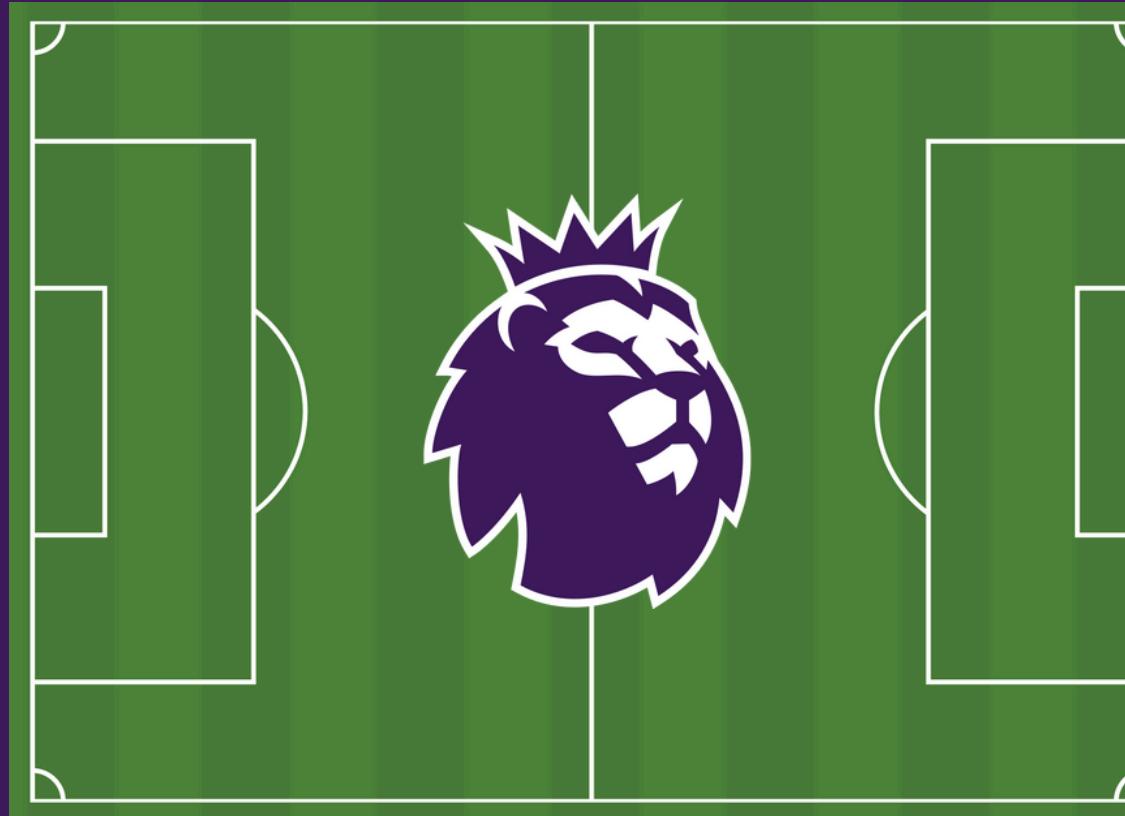


FOOTBALL LEAGUE PREDICTOR

ENGLISH PREMIER LEAGUE 2024/2025



Tom Jansen, Mariano Lara, Hernan Andres Fermin, Luke Mercouris, Alejandro Born de Andres



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FOOTBALL

CULTURAL SIGNIFICANCE

- **Global Unifier:** Bridges cultural and social divides.
- **National Identity:** Reflects cultural values and unity.
- **Artistic Influence:** Inspires literature, film, and music

ECONOMY OF SCALE

- **Revenue Generation:** Top 20 football clubs amassed €11.2 billion in 2023/24.
 - **Employment Opportunities:** Football industry sustains numerous jobs across various sectors.
 - **Investment Magnet:** Attracts significant global investments.
-



THE ENGLISH PREMIER LEAGUE

FOUNDED

1992/1993 season

INITIAL FORMAT

42 games per team (changed
in 1996)

CURRENT FORMAT

Teams: 20
Matches per Team: 38
(home & away)

POINT SYSTEM

Win: 3 points
Draw: 1 point
Loss: 0 points

TRANSFER WINDOW

Summer
Winter

RELEGATION & PROMOTION

Bottom 3 teams are relegated
3 new teams are promoted
from the Championship



DOMESTIC COMPETITIONS

Premier League Teams Only

Reaching Final

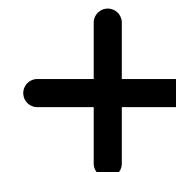
PREMIER LEAGUE



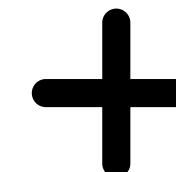
Premier
League

- Random Fixtures
- League Format
- Teams: 20
- Matchdays: 38

38 Games



6 Games



6 Games



=
50



FA CUP

- Random Draw
- Knockout Format
- Teams: 745
- Rounds: 12



CARABAO CUP

- Random Draw
- Knockout Format
- Teams: 92
- Rounds: 7



EUROPEAN COMPETITIONS

Premier League Teams can only be in one

Reaching Final

CHAMPIONS LEAGUE



**CHAMPIONS
LEAGUE®**

- Random Draw
- League/Knockout
- Teams: 36
- Rounds: 13

**8-15/17
Games**

EUROPA LEAGUE



**EUROPA
LEAGUE™**

- Random Draw
- League/Knockout
- Teams: 36 (58)
- Rounds: 13

**8-15/17
Games**

CONFERENCE LEAGUE



**CONFERENCE
LEAGUE**

- Random Draw
- League/Knockout
- Teams: 36 (184)
- Rounds: 13

**8-15/17
Games**



THE PURPOSE & IDEA

Developing a machine learning model to predict outcomes from matches and leagues standings

Football matches are highly unpredictable, challenging fans, teams, and stakeholders like betting companies and broadcasters.

STAKEHOLDERS

- **Teams:** Provide clubs with insights into future match outcomes and potential league positions based on current performance.
 - **Fans:** Enhance fan engagement by offering more accurate predictions.
 - **Betting and Analytics:** Offer improved predictive models for stakeholders in the betting industry and broadcasters.
-



THE MODEL

DATA

- Historical Data
Seasons
 - 1. 2020/2021
 - 2. 2021/2022
 - 3. 2022/2023
 - 4. 2023/2024
- 2019/2020 - COVID

VARIABLES

- Win, Draw, Loss
- 1. Shots
- 2. Possession
- 3. Completed Passes
- 4. xG (Expected Goals)
- 5. CK (Corner Kicks)
- 6. FK (Free-kicks)
- 7. GCA (Goal-creating Actions)
- 8. SCA (Shot-creating Actions)

NON-STATISTICAL VARIABLES

1. Home/Away
2. Rolling Ave/form
3. Head-to-head records





DATA SOURCES





NON-DATA CHALLENGES

MANAGEMENT*

WEATHER

DERBIES/RIVALRIES

INJURIES, SUSPENSIONS

REFEREEING/VAR

TRANSFERS*

STADIUM/FANS

CALENDAR/MATCH LOAD*





CHALLENGES

Considerations



- Old Trafford, MUFC: 74,197
- Vitality Stadium, AFCB: 11,307
- Average: 40,796 (12 teams below the average)

- Newcastle: 391 Miles
- Arsenal: 167 Miles
- Average: 220.8 miles (12 teams below the average)

- Video Assistant Referee (VAR)
- 2019
- Controversy
- PGMOL

- Arsenal: 27
- West Ham: 6
 - Average: 15,2 (MD 24)
- Last Season: Average of 32,5



2023/2024 SEASON

Position	Club	Played	Won	Drawn	Lost	GF	GA	GD	Points
1 *	Manchester City	38	28	7	3	96	34	62	91
2 *	Arsenal	38	28	5	5	91	29	62	89
3 *	Liverpool	38	24	10	4	86	41	45	82
4 *	Aston Villa	38	20	8	10	76	61	15	68
5 *	Tottenham Hotspur	38	20	6	12	74	61	13	66
6 *	Chelsea	38	18	9	11	77	63	14	63
7 *	Newcastle United	38	18	6	14	85	62	23	60
8 *	Manchester United	38	18	6	14	57	58	-1	60
9 *	West Ham United	38	14	10	14	60	74	-14	52
10 *	Crystal Palace	38	13	10	15	57	58	-1	49
11 *	Brighton And Hove Albion	38	12	12	14	55	62	-7	48
12 *	Bournemouth	38	13	9	16	54	67	-13	48
13 *	Fulham	38	13	8	17	55	61	-6	47
14 *	Wolverhampton Wanderers	38	13	7	18	50	65	-15	46
15 *	Everton	38	13	9	16	40	51	-11	40
16 *	Brentford	38	10	9	19	56	65	-9	39
17 *	Nottingham Forest	38	9	9	20	49	67	-18	32
18 *	Luton Town	38	6	8	24	52	85	-33	26
19 *	Burnley	38	5	9	24	41	78	-37	24
20 *	Sheffield United	38	3	7	28	35	104	-69	16

REMARKS

- Manchester City FC - 4th consecutive title
- RELEGATED TEAMS:
 - Luton Town FC
 - Burnley FC
 - Sheffield United FC
- European Competitions
- Other: Points Deduction
 - Everton FC - 8 points
 - Nottingham Forest FC - 4 points
 - Profitability and Sustainability Rules (PSRs)

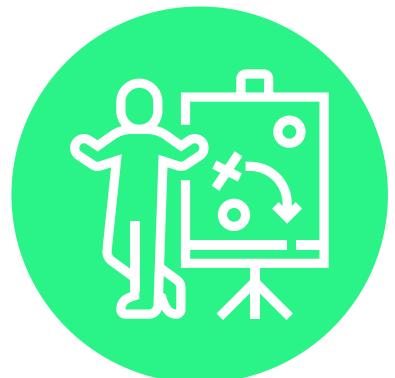


PRE-SEASON CHANGES

Start of the 2024/2025 EPL Season



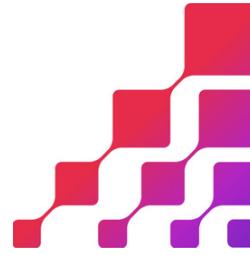
3 NEW TEAMS: Leicester City FC, Ipswich Town FC, Southampton FC



MANAGERS: 5 new managers excluding promoted team's managers



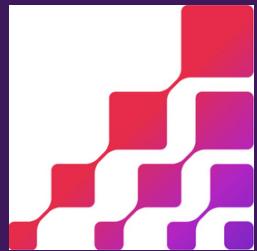
TRANSFERS (Average): In = 6.45 & Out = 7.95 (per team)



OPTA STATS



- **Predicts League Outcomes:** Uses simulations to estimate the likelihood of teams finishing in each position, from title chances to relegation risks.
- **Powered by Betting Odds & Rankings:** Combines betting market odds with Opta Power Rankings based on historical and recent performances.
- **Simulates Thousands of Fixtures:** Runs thousands of match simulations to assess team performance across the season. (Over 10,000)
- **Creates Data-Driven Predictions:** Analyzes simulation results to determine probabilities for final league positions.



OPTA STATS



Predicted Final League Position

Premier League 2024-25 | 12 August 2024



	POS	GP	PTS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Manchester City	1	0	0	82.2	13.8	3.5	0.4																	
Arsenal	2	0	0	12.2	48.8	26.8	7.9	2.4	1.0	0.6	0.2													
Liverpool	3	0	0	5.1	29.6	40.2	14.0	5.6	3.0	1.3	0.7	0.3	0.1											
Chelsea	4	0	0	0.2	2.5	9.4	19.5	18.3	13.6	10.8	7.6	6.0	4.3	2.8	1.9	1.3	0.9	0.4	0.3	0.1				
Newcastle United	5	0	0	0.1	2.2	6.7	17.5	16.3	14.6	12.1	8.9	6.6	4.8	3.5	2.8	1.5	1.0	0.8	0.4	0.2	0.1			
Manchester United	6	0	0		1.2	4.7	12.9	14.7	14.1	11.9	10.3	8.0	6.6	5.1	3.6	2.5	1.8	1.2	0.7	0.4	0.3			
Tottenham Hotspur	7	0	0		1.3	4.5	11.6	14.4	13.8	12.3	10.5	8.6	6.2	5.0	3.9	2.7	2.3	1.4	0.8	0.4	0.2			
Aston Villa	8	0	0		0.3	1.4	5.6	8.4	10.0	11.1	11.1	9.8	9.6	7.9	6.8	5.6	4.4	3.1	2.4	1.4	0.6	0.4	0.1	
Crystal Palace	9	0	0		0.2	1.2	4.0	6.3	8.4	9.8	10.4	10.4	9.9	9.5	7.4	6.1	5.0	4.1	3.4	2.1	1.1	0.6	0.1	
West Ham United	10	0	0		0.4	1.7	3.1	4.3	6.1	7.7	8.7	9.5	9.3	9.6	9.5	7.8	7.4	5.6	4.2	2.9	1.5	0.5		
Brighton	11	0	0		0.4	1.4	3.0	4.6	6.2	7.4	8.7	9.5	9.4	9.7	9.1	8.3	7.2	5.8	4.2	2.9	1.5	0.7		
Fulham	12	0	0		0.3	1.2	2.3	3.5	4.7	6.6	7.9	8.5	9.6	10.1	9.3	8.8	8.1	6.8	5.6	3.6	2.2	0.9		
Everton	13	0	0		0.8	1.6	3.1	4.0	5.2	6.9	8.0	8.7	9.8	9.8	9.4	9.4	7.9	6.2	4.7	3.2	1.3			
Brentford	14	0	0		0.2	0.8	1.5	2.8	3.8	4.8	6.8	7.8	8.4	8.8	10.2	9.9	8.9	8.2	7.1	5.0	3.4	1.6		
Bournemouth	15	0	0		0.1	0.5	1.2	1.7	2.8	4.2	5.2	6.5	7.9	8.8	9.8	10.8	10.9	9.4	8.1	5.8	4.3	2.2		
Wolves	16	0	0			0.2	0.5	1.1	1.6	2.6	3.3	4.6	6.0	7.0	8.5	10.4	10.7	11.5	11.2	9.7	7.2	4.0		
Nottingham Forest	17	0	0			0.2	0.3	0.6	1.2	1.6	2.2	3.6	5.0	6.1	8.1	9.7	12.5	13.2	13.8	12.5	9.2			
Leicester City	18	0	0				0.1	0.2	0.5	0.8	1.3	2.0	3.1	4.2	6.3	9.0	12.2	16.8	20.2	23.4				
Ipswich Town	19	0	0					0.3	0.4	0.6	1.0	1.6	2.7	3.4	5.2	7.9	12.0	16.1	21.3	27.4				
Southampton	20	0	0						0.2	0.3	0.6	1.0	1.4	2.3	3.3	5.3	7.4	11.5	16.5	21.6	28.6			

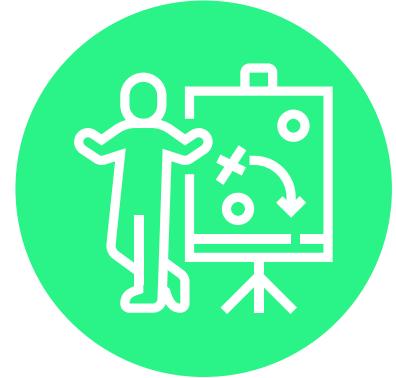
Percentage probabilities of finishing in each position are shown. Only probabilities of at least 0.1% are labelled.

MD: 0

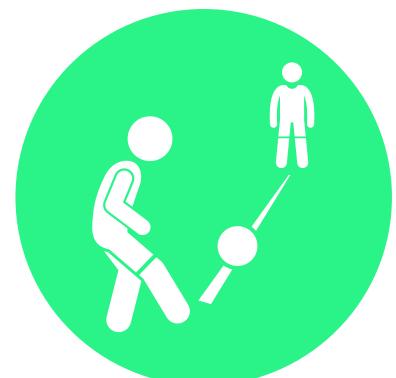


IN-SEASON CHANGES

Halfway point 2024/2025 EPL Season



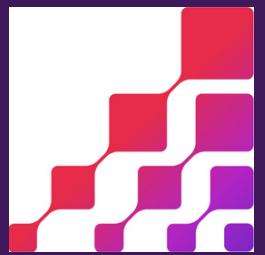
MANAGERS: 6 new managers including promoted team's managers



TRANSFERS (Average): In = 1.6 & Out = 0.55 (per team)



INJURIES (Average): 15.2 (per team) -> Min. 6 - Max. 27



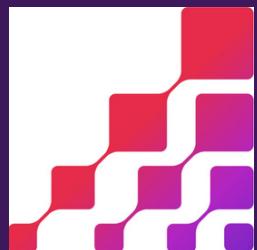
OPTA STATS



POS	TEAM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	LIVERPOOL	84.3%	15.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
2	ARSENAL	15.6%	79.8%	3.8%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
3	NOTTINGHAM FOREST	0.0%	1.0%	17.4%	23.1%	20.6%	17.8%	12.4%	5.1%	1.7%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
4	MANCHESTER CITY	0.0%	3.0%	49.5%	22.6%	12.5%	7.1%	3.4%	1.4%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
5	AFC BOURNEMOUTH	0.0%	0.3%	10.1%	16.8%	21.6%	21.0%	16.6%	7.7%	3.6%	1.5%	0.6%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
6	CHELSEA	0.0%	0.4%	12.6%	21.5%	21.3%	19.5%	14.7%	6.2%	2.5%	1.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
7	NEWCASTLE UNITED	0.0%	0.2%	5.5%	12.8%	17.3%	20.2%	21.8%	12.6%	5.5%	2.7%	0.8%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
8	FULHAM	0.0%	0.0%	0.2%	0.7%	2.2%	4.7%	9.2%	19.3%	21.3%	18.0%	11.4%	7.2%	3.5%	1.6%	0.5%	0.1%	0.0%	0.0%	0.0%	
9	ASTON VILLA	0.0%	0.0%	0.3%	1.0%	2.2%	4.5%	9.4%	18.0%	20.8%	17.9%	11.5%	7.5%	4.1%	2.0%	0.7%	0.1%	0.0%	0.0%	0.0%	
10	BRIGHTON & HOVE ALBION	0.0%	0.0%	0.2%	0.7%	1.7%	4.2%	9.1%	18.4%	20.5%	18.2%	12.0%	8.0%	4.1%	2.1%	0.7%	0.2%	0.0%	0.0%	0.0%	
11	BRENTFORD	0.0%	0.0%	0.0%	0.1%	0.2%	0.5%	1.6%	4.2%	8.8%	12.7%	17.4%	18.1%	15.9%	11.3%	6.6%	2.5%	0.3%	0.0%	0.0%	
12	CRYSTAL PALACE	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	1.0%	3.5%	6.5%	10.9%	15.7%	17.9%	17.2%	13.5%	9.0%	4.0%	0.6%	0.0%	0.0%	
13	MANCHESTER UNITED	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.5%	1.5%	3.6%	7.0%	12.1%	14.6%	17.6%	18.4%	14.1%	8.8%	1.6%	0.1%	0.0%	0.0%
14	EVERTON	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.5%	1.1%	2.8%	5.7%	9.7%	15.6%	25.1%	29.6%	9.2%	0.5%	0.0%	0.0%
15	TOTTENHAM HOTSPUR	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.4%	1.9%	3.9%	7.3%	12.3%	14.6%	17.4%	17.4%	14.0%	8.7%	1.9%	0.0%	0.0%	0.0%
16	WEST HAM UNITED	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.5%	1.1%	2.9%	5.5%	9.6%	15.9%	23.5%	30.1%	10.1%	0.6%	0.0%	0.0%
17	WOLVERHAMPTON WANDERERS	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.3%	0.7%	2.2%	5.6%	14.5%	61.2%	12.3%	3.0%	0.0%
18	IPSWICH TOWN	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.8%	7.5%	44.6%	43.7%	3.2%
19	LEICESTER CITY	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.5%	7.6%	40.6%	46.8%	4.4%
20	SOUTHAMPTON	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	1.2%	6.4%	92.3%

Data provided by Opta.

MD: 24



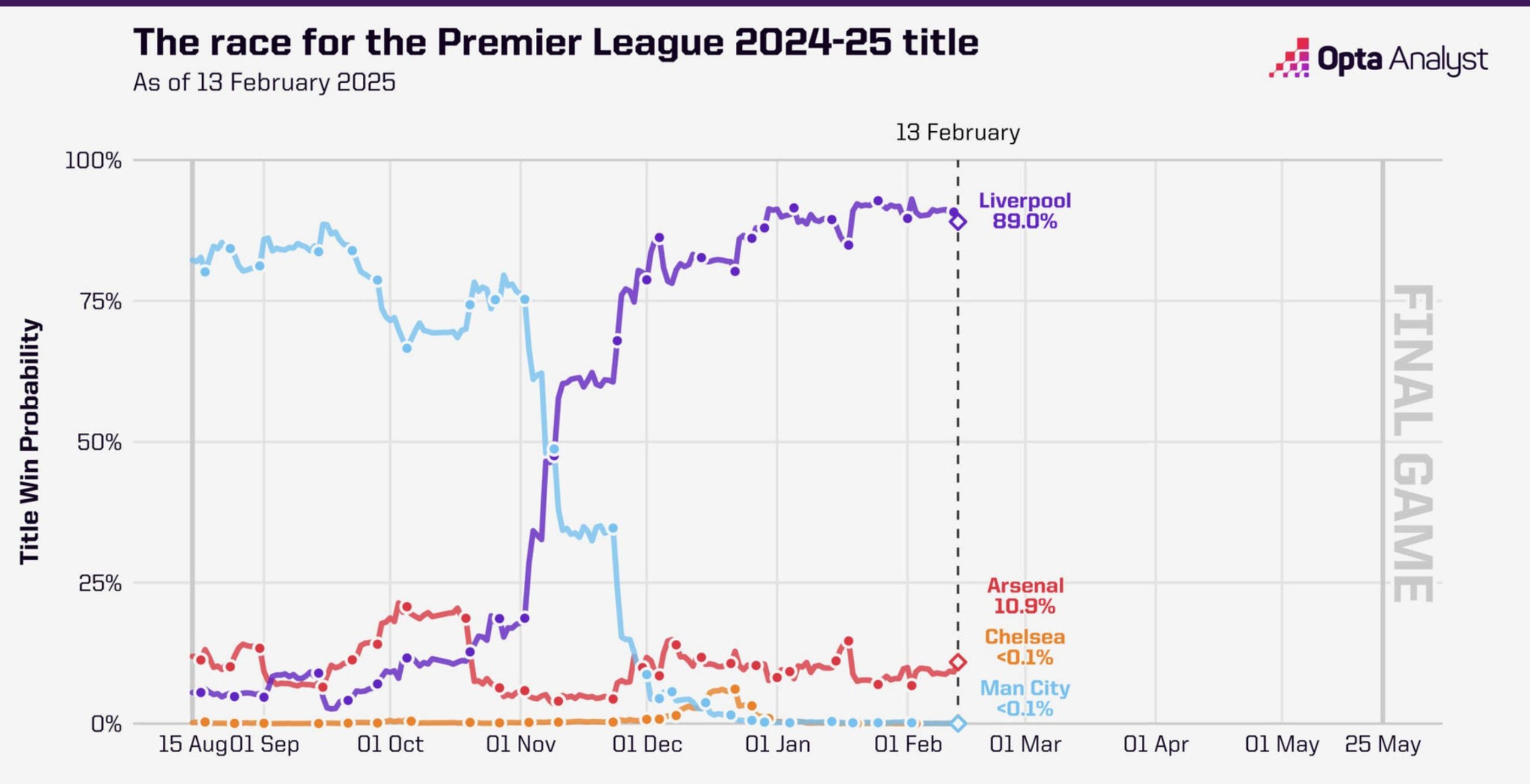
OPTA STATS



The race for the Premier League 2024-25 title

As of 13 February 2025

Opta Analyst



MD: 24



FEATURES

RFE:

EXPECTED GOALS
SHOTS ON TARGET
COMPLETED PASSES%
GOAL CREATING ACTIONS
FOULS
SAVES
POSSESSION
SHOTS
GOALS PER SHOT
COMPLETED PASSES
SAVE%
HOME TEAM ENCODED

Classification



RFC

WIN %
DRAW %
LOSS %

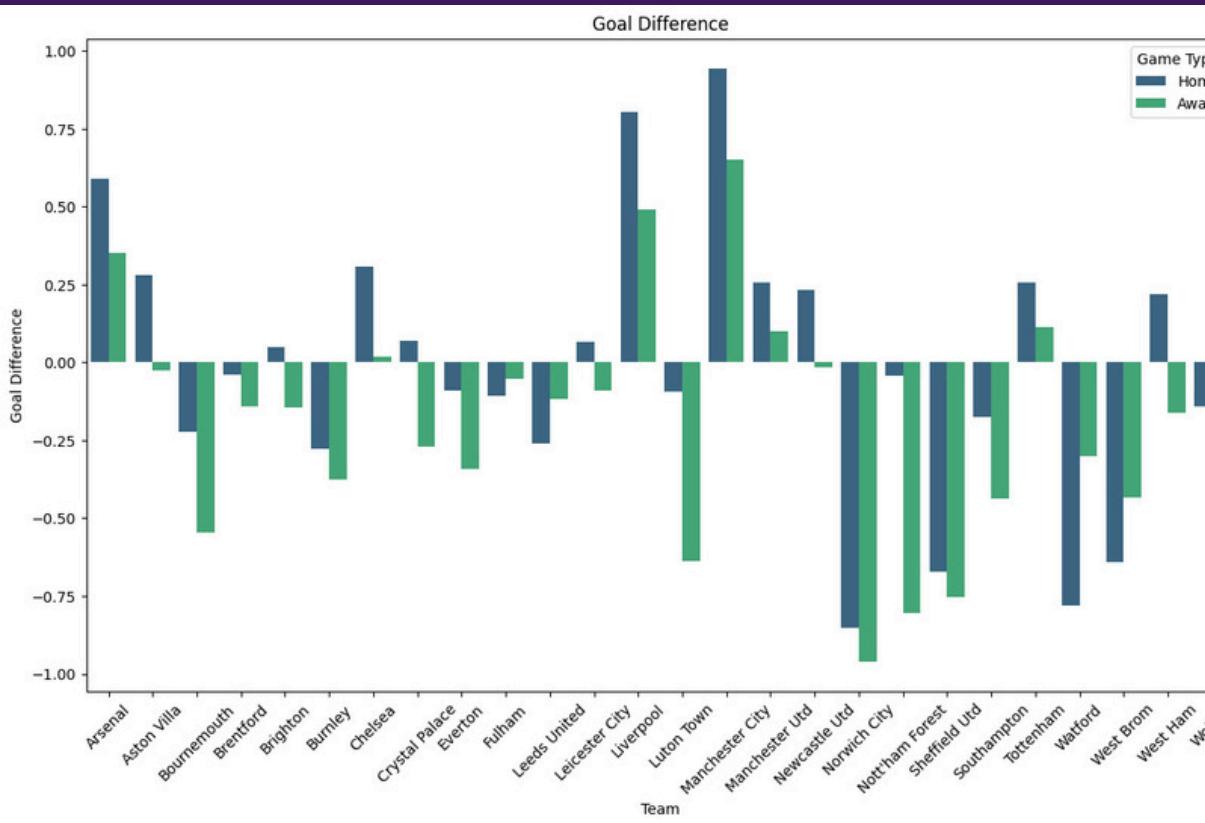


MODEL INPUTS

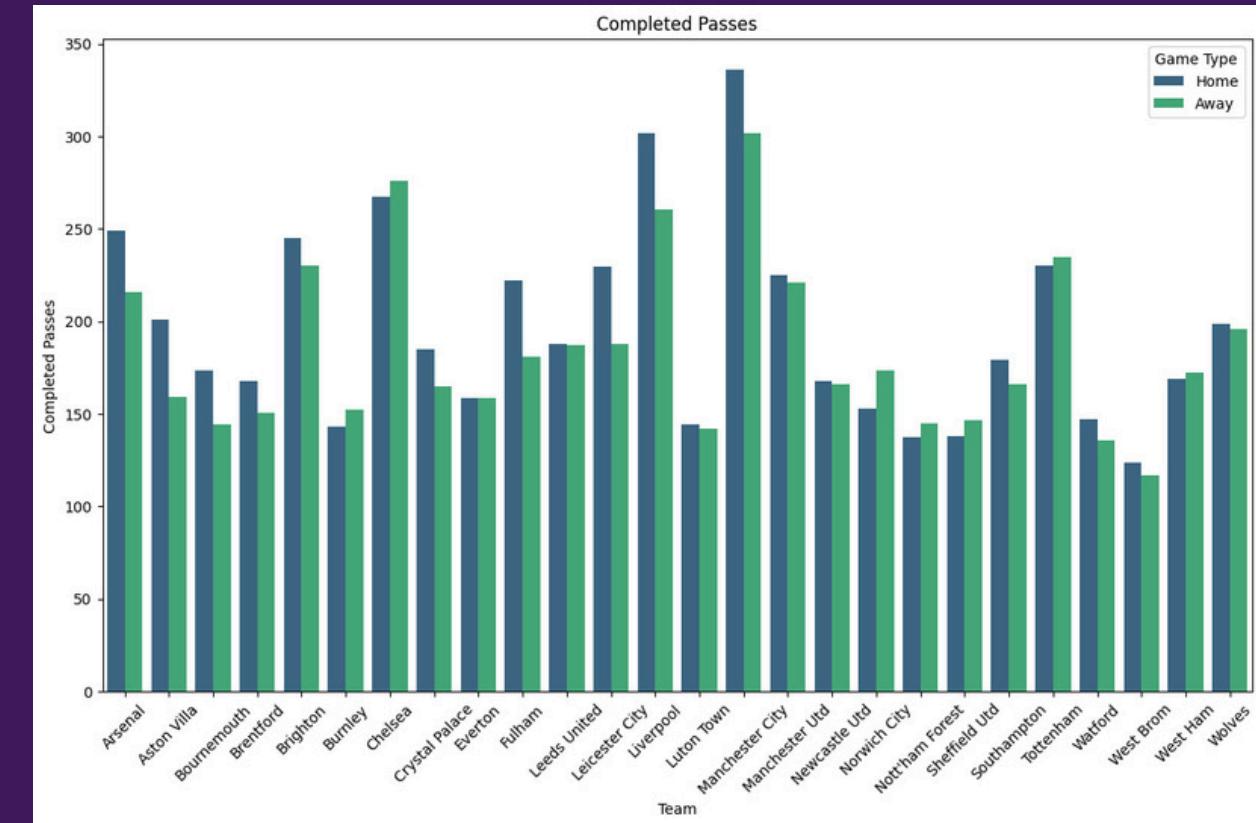
Weighted Team Averages H/A Split

More weight on recent performance & Significant difference between Home & Away performance

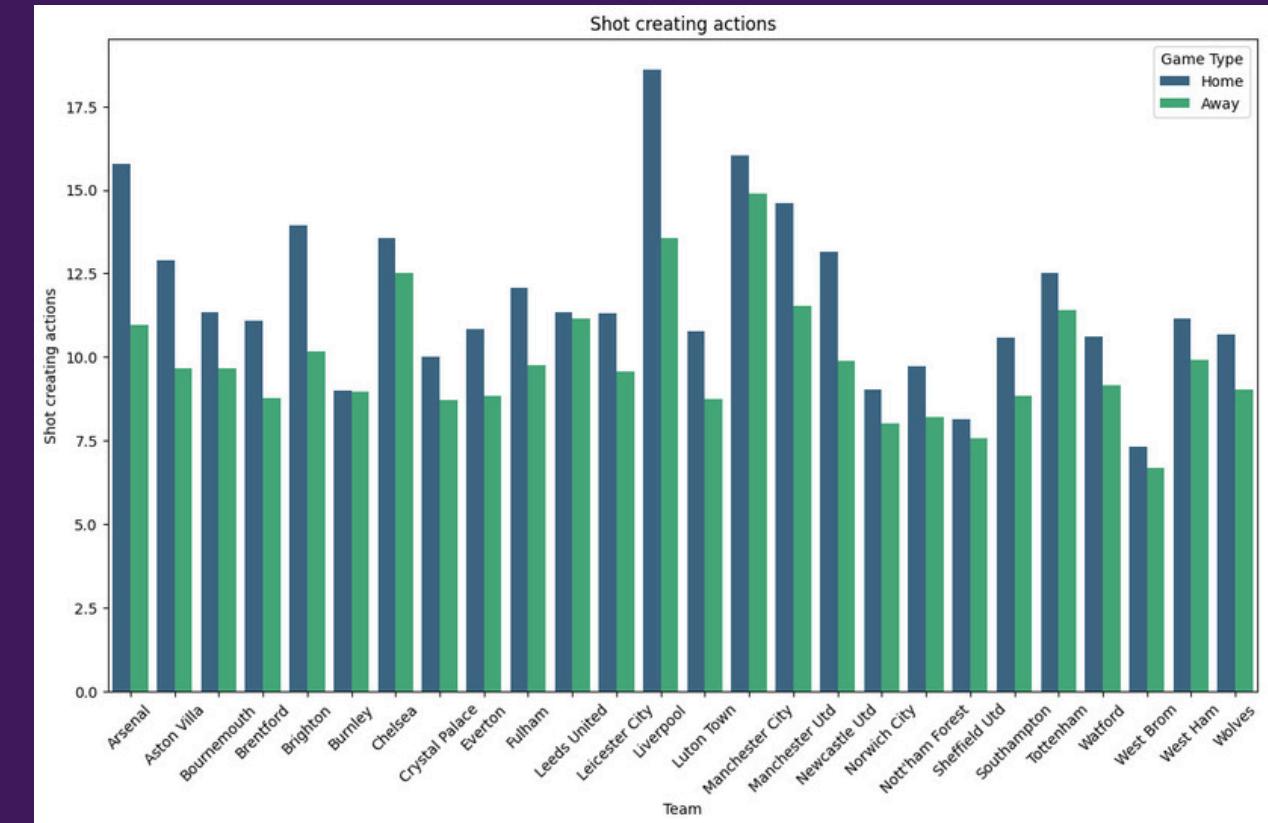
Goal Difference (H/A)



Competed Passes (H/A)



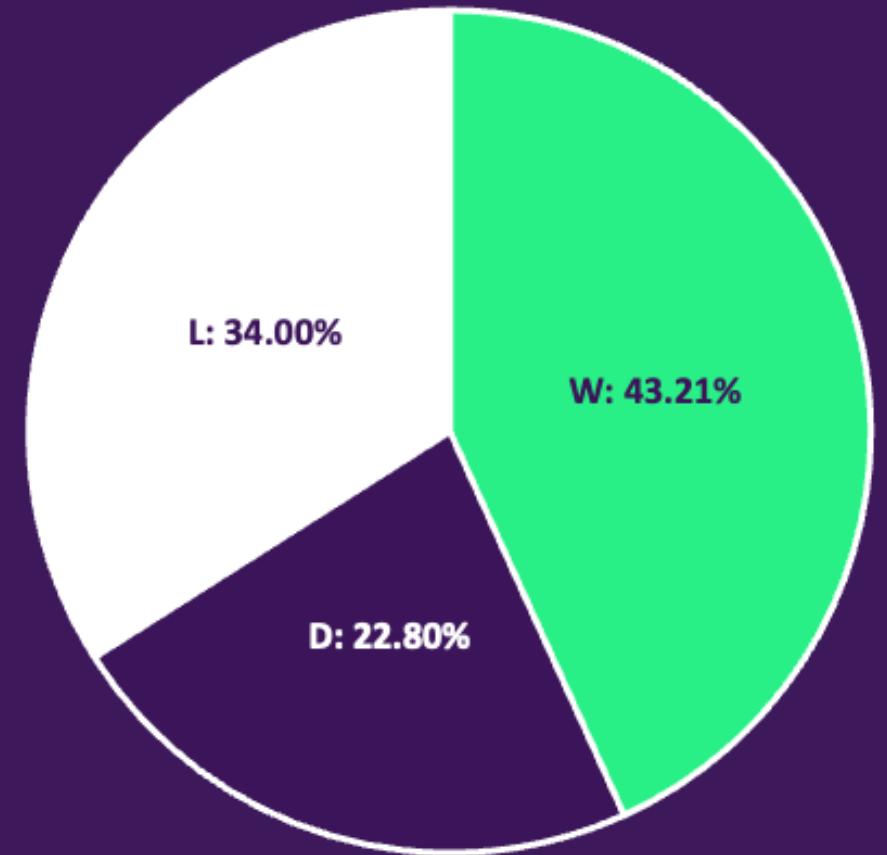
Shot Creating Actions (H/A)





CLASS IMBALANCE

Sample Weights



Threshold:

No Threshold:

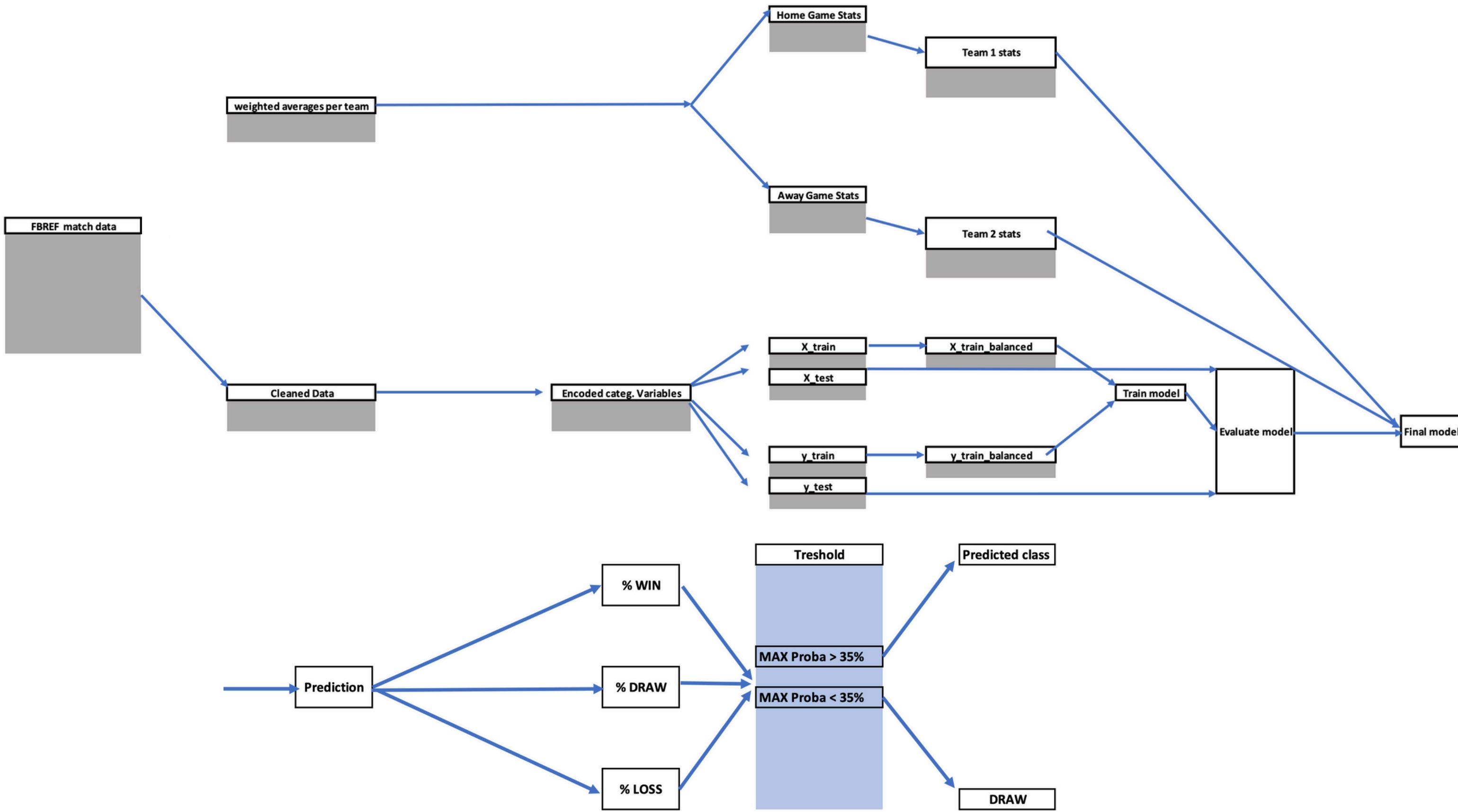
RESULT	PREDICTION	TRAIN	DELTA
W	47.63%	43.21%	4.43%
D	18.95%	22.80%	-3.85%
L	33.42%	34.00%	-0.58%
W	41.58%	43.21%	-1.63%
D	28.42%	22.80%	5.62%
L	30.00%	34.00%	-4.00%
W	43.95%	43.21%	0.74%
D	23.68%	22.80%	0.89%
L	32.37%	34.00%	-1.63%

40% Threshold:

35 % Threshold:



MODEL STRUCTURE I:





MODEL STRUCTURE II:



Predicted Ranking

	Predicted rank	team	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
44	1	Liverpool	43.68	23.06	31.09	2.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
39	2	Arsenal	35.24	39.09	24.77	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	3	Nott'm Forest	20.71	36.77	40.84	1.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
95	4	Manchester City	0.37	1.08	3.3	95.19	0.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
66	5	Bournemouth	0	0	0	0.06	66.3	24.87	6.22	1.71	0.54	0.17	0.1	0.01	0.02	0	0	0	0	0	0	0	0
50	6	Newcastle Utd	0	0	0	0	0	28.75	49.95	14.4	3.97	1.53	0.69	0.42	0.19	0.07	0.03	0	0	0	0	0	0
40	7	Wolves	0	0	0	0	0	4.05	17.25	40.36	18.26	8.92	4.87	2.9	1.7	1.06	0.5	0.13	0	0	0	0	0
18	8	Crystal Palace	0	0	0	0	0.13	1.29	8.28	17.97	17.26	16.16	12.77	10.82	8.53	5.1	1.67	0.02	0	0	0	0	0
18	8	Tottenham	0	0	0	0	0	0.4	3.51	13.2	17.57	15.86	13.69	11.56	9.71	7.67	4.89	1.89	0.05	0	0	0	0
15	9	Fulham	0	0	0	0	0.09	0.98	6.33	13.39	14.55	13.82	13.73	12.85	12.03	8.61	3.5	0.12	0	0	0	0	0
17	11	Brentford	0	0	0	0	0	0.05	0.51	3.54	9.73	14.29	16.16	16.74	16.12	11.82	7.92	3.06	0.06	0	0	0	0
17	13	Aston Villa	0	0	0	0	0	0	0.21	1.35	5.36	9.88	13.7	15.25	16.7	16.85	13.86	6.59	0.25	0	0	0	0
19	13	Chelsea	0	0	0	0	0.04	0.53	2.53	5.24	7.95	10.02	12.7	14.95	18.91	17.85	8.88	0.38	0.02	0	0	0	0
22	14	West Ham	0	0	0	0	0	0.07	0.53	2.46	4.22	5.72	6.9	8.46	10.23	13.1	22.44	21.93	3.45	0.49	0	0	0
36	15	Everton	0	0	0	0	0.06	0.37	1.33	2.58	3.49	3.81	5.3	6.59	9.55	16.5	36.48	9.81	4.12	0.01	0	0	0
46	17	Brighton	0	0	0	0	0	0	0	0	0	0	0.02	0.04	0.17	0.99	7.92	43.8	46.26	0.8	0	0	0
47	17	Ipswich Town	0	0	0	0	0	0	0	0	0	0.01	0.01	0.05	0.09	0.22	1.31	7.95	41.95	47	1.39	0.02	0
95	18	Manchester Utd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.11	2.08	95.15	2.61	0.05	0	0
94	19	Leicester City	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.03	2.5	93.7	3.77	0	0
96	20	Southampton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.15	3.67	96.18	0	0	0



MODEL & OUTCOME

Premier League Position Probabilities

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Liverpool	43.68%	23.06%	31.09%	2.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Arsenal	35.24%	39.09%	24.77%	0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Nott'ham Forest	20.73%	36.77%	40.64%	1.68%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Manchester City	0.37%	1.08%	3.30%	95.19%	0.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Bournemouth	0.00%	0.00%	0.00%	0.06%	66.30%	24.87%	6.22%	1.71%	0.54%	0.17%	0.10%	0.01%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Newcastle Utd	0.00%	0.00%	0.00%	0.00%	28.75%	49.95%	14.40%	3.97%	1.53%	0.69%	0.42%	0.19%	0.07%	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Wolves	0.00%	0.00%	0.00%	0.00%	4.05%	17.25%	40.36%	18.26%	8.92%	4.87%	2.90%	1.70%	1.06%	0.50%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%
Crystal Palace	0.00%	0.00%	0.00%	0.00%	0.13%	1.29%	8.28%	17.97%	17.26%	16.16%	12.77%	10.82%	8.53%	5.10%	1.67%	0.02%	0.00%	0.00%	0.00%	0.00%
Tottenham	0.00%	0.00%	0.00%	0.00%	0.40%	3.51%	13.20%	17.57%	15.86%	13.69%	11.56%	9.71%	7.67%	4.89%	1.89%	0.05%	0.00%	0.00%	0.00%	0.00%
Fulham	0.00%	0.00%	0.00%	0.00%	0.09%	0.98%	6.33%	13.39%	14.55%	13.82%	13.73%	12.85%	12.03%	8.61%	3.50%	0.12%	0.00%	0.00%	0.00%	0.00%
Brentford	0.00%	0.00%	0.00%	0.00%	0.05%	0.51%	3.54%	9.73%	14.29%	16.16%	16.74%	16.12%	11.62%	7.92%	3.06%	0.06%	0.00%	0.00%	0.00%	0.00%
Aston Villa	0.00%	0.00%	0.00%	0.00%	0.00%	0.21%	1.35%	5.36%	9.88%	13.70%	15.25%	16.70%	16.85%	13.86%	6.59%	0.25%	0.00%	0.00%	0.00%	0.00%
Chelsea	0.00%	0.00%	0.00%	0.00%	0.04%	0.53%	2.53%	5.24%	7.95%	10.02%	12.70%	14.95%	18.91%	17.85%	8.88%	0.38%	0.02%	0.00%	0.00%	0.00%
West Ham	0.00%	0.00%	0.00%	0.00%	0.07%	0.53%	2.46%	4.22%	5.72%	6.90%	8.46%	10.23%	13.10%	22.44%	21.93%	3.45%	0.49%	0.00%	0.00%	0.00%
Everton	0.00%	0.00%	0.00%	0.00%	0.06%	0.37%	1.33%	2.58%	3.49%	3.81%	5.30%	6.59%	9.55%	16.50%	36.48%	9.81%	4.12%	0.01%	0.00%	0.00%
Brighton	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.04%	0.17%	0.99%	7.92%	43.80%	46.26%	0.80%	0.00%	0.00%	0.00%
Ipswich Town	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.01%	0.05%	0.09%	0.22%	1.31%	7.95%	41.95%	47.00%	1.39%	0.02%	0.00%
Manchester Utd	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.11%	2.08%	95.15%	2.61%	0.05%	0.00%	0.00%
Leicester City	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.03%	2.50%	93.70%	3.77%	0.00%	0.00%
Southampton	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.15%	3.67%	96.18%	0.00%	0.00%	0.00%

Position

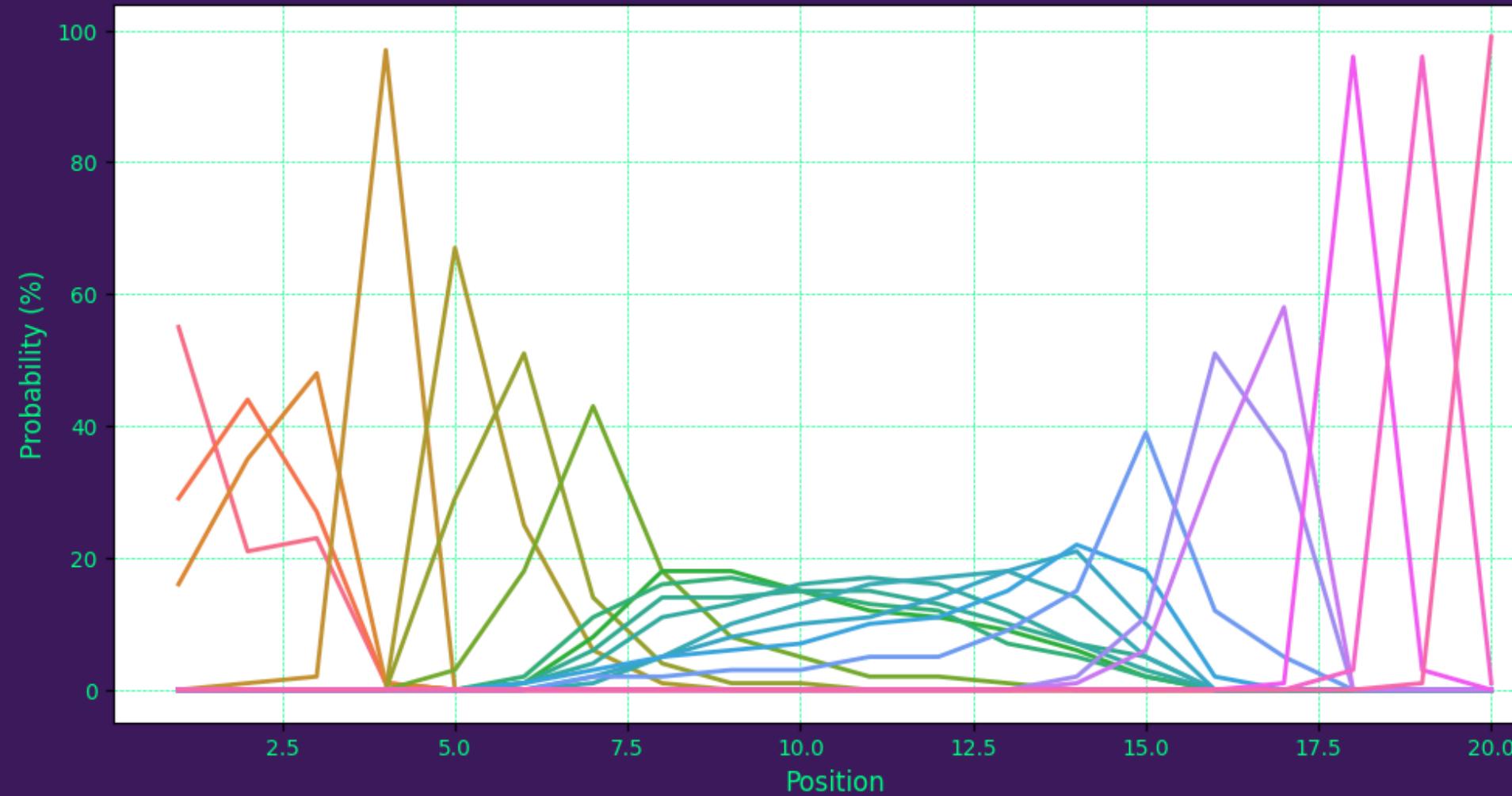
Premier League Position Probabilities (OPTA)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Liverpool	84.00%	15.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Arsenal	16.00%	80.00%	4.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Nottingham Forest	0.00%	1.00%	17.00%	23.00%	21.00%	18.00%	12.00%	5.00%	2.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Manchester City	0.00%	3.00%	50.00%	23.00%	13.00%	7.00%	3.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
AFC Bournemouth	0.00%	0.00%	10.00%	17.00%	22.00%	21.00%	17.00%	8.00%	4.00%	2.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Chelsea	0.00%	0.00%	13.00%	22.00%	21.00%	20.00%	15.00%	6.00%	3.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Newcastle United	0.00%	0.00%	6.00%	13.00%	17.00%	20.00%	22.00%	13.00%	6.00%	3.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fulham	0.00%	0.00%	0.00%	1.00%	2.00%	5.00%	9.00%	19.00%	21.00%	18.00%	11.00%	7.00%	4.00%	2.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Aston Villa	0.00%	0.00%	0.00%	1.00%	2.00%	5.00%	9.00%	18.00%	21.00%	18.00%	12.00%	8.00%	4.00%	2.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Brighton & Hove Albion	0.00%	0.00%	0.00%	1.00%	2.00%	4.00%	9.00%	18.00%	21.00%	18.00%	12.00%	8.00%	4.00%	2.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Brentford	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	2.00%	4.00%	9.00%	13.00%	17.00%	18.00%	11.00%	7.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Crystal Palace	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	4.00%	7.00%	11.00%	16.00%	18.00%	17.00%	14.00%	9.00%	4.00%	1.00%	0.00%	0.00%	0.00%
Manchester United	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	2.00%	4.00%	7.00%	12.00%	15.00%	18.00%	14.00%	9.00%	2.00%	0.00%	0.00%	0.00%	0.00%
Everton	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%	3.00%	6.00%	10.00%	16.00%							

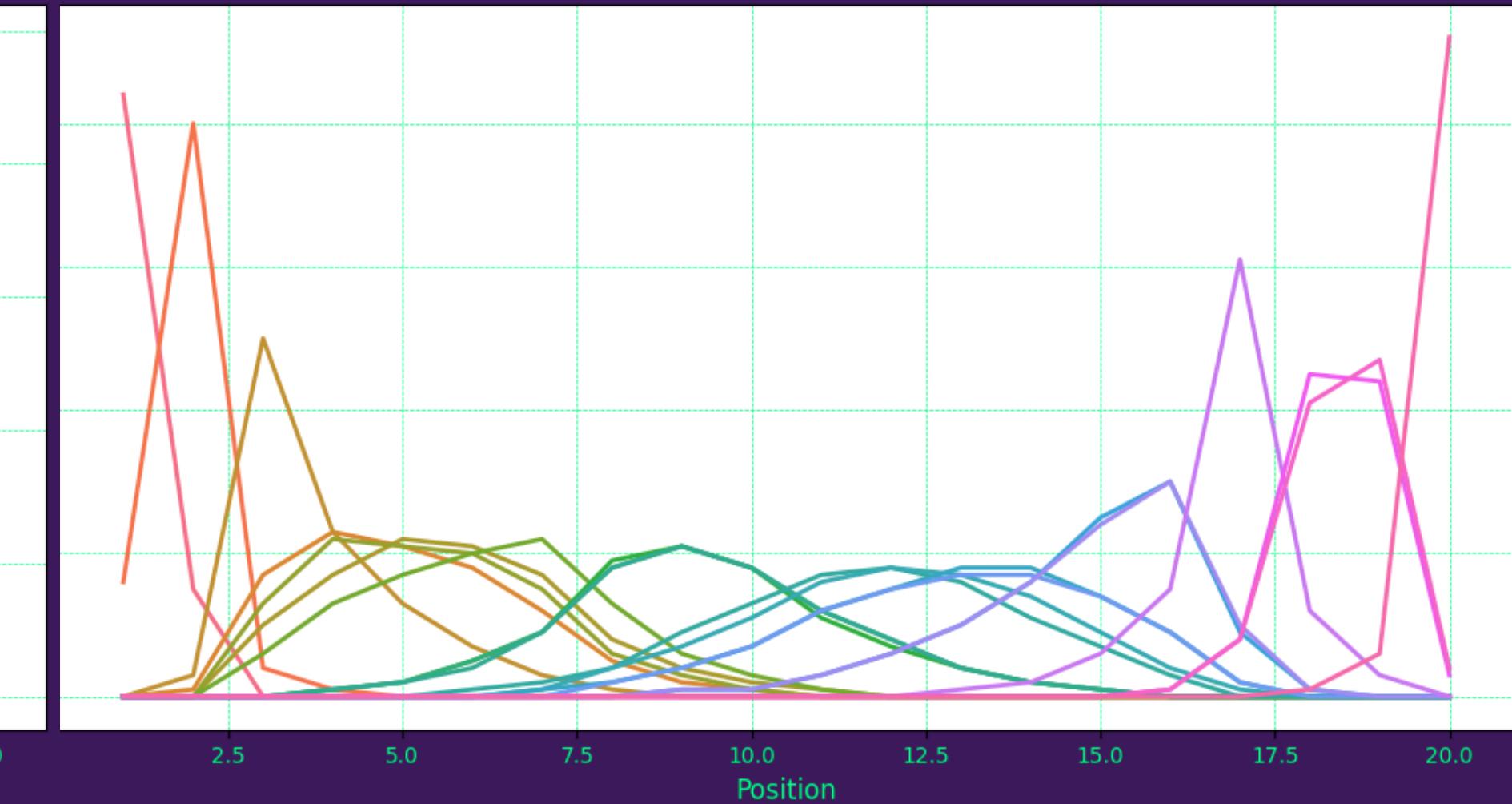


MODEL & OUTCOME

Premier League Position Probability Distributions



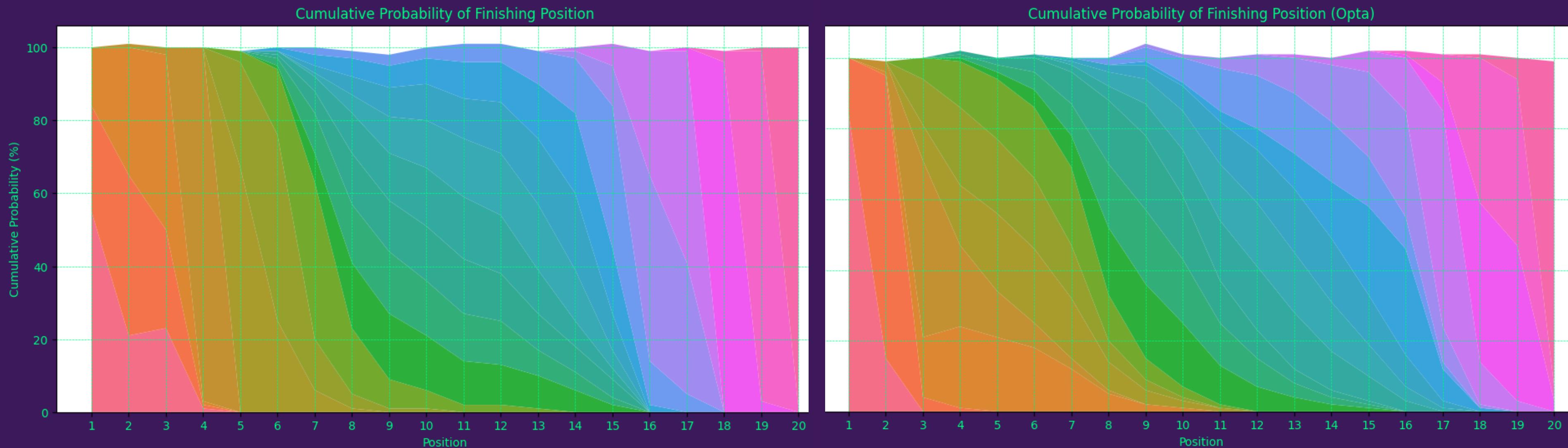
Premier League Position Probability Distributions (Opta)



Liverpool	Bournemouth	Tottenham	Chelsea	Brighton
Arsenal	Newcastle Utd	Fulham	West Ham	Manchester Utd
Nott'ham Forest	Wolves	Brentford	Everton	Leicester City
Manchester City	Crystal Palace	Aston Villa	Ipswich Town	Southampton



MODEL & OUTCOME



Liverpool	Bournemouth	Tottenham	Chelsea	Brighton
Arsenal	Newcastle Utd	Fulham	West Ham	Manchester Utd
Nott'ham Forest	Wolves	Brentford	Everton	Leicester City
Manchester City	Crystal Palace	Aston Villa	Ipswich Town	Southampton



COMPARISON

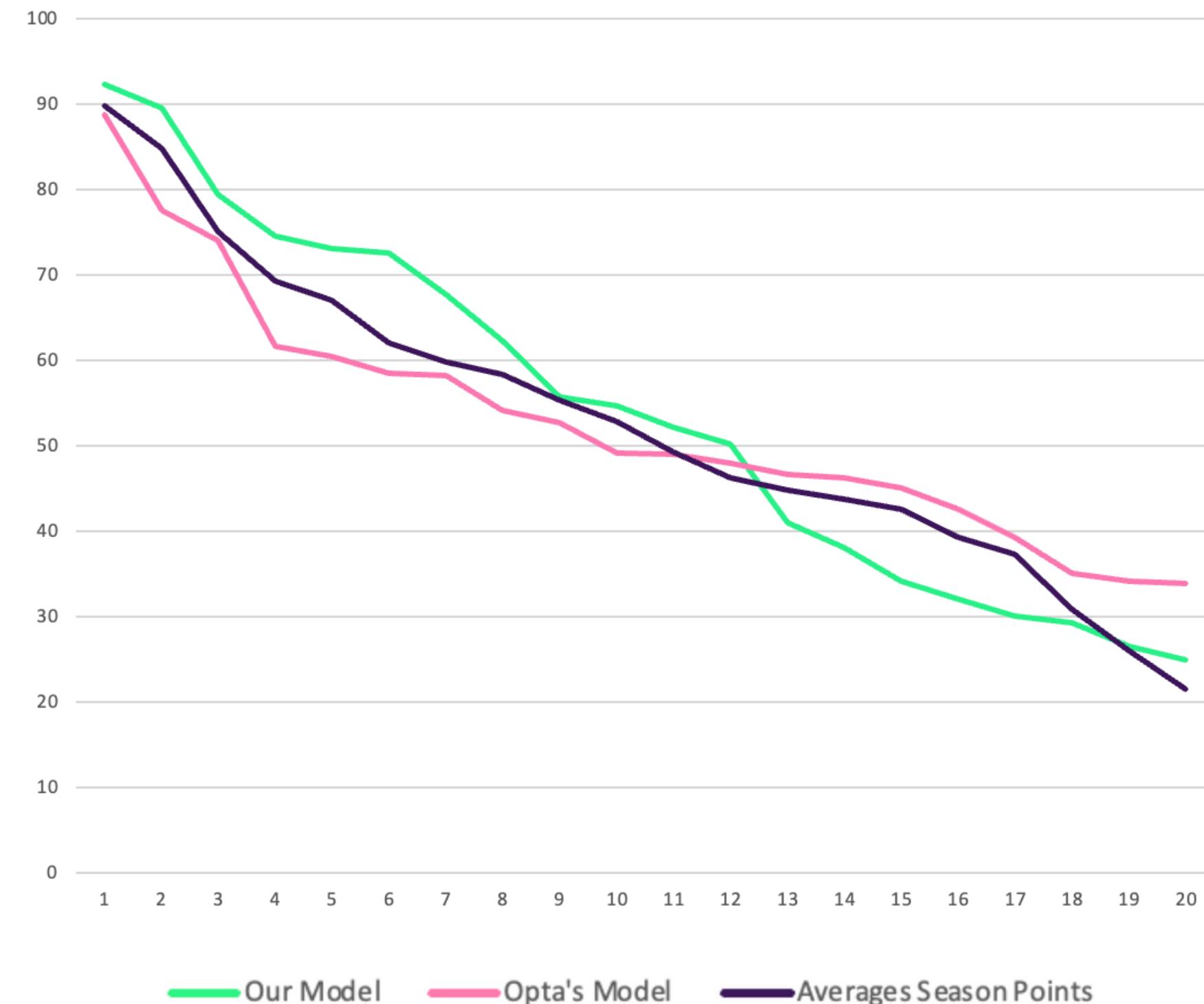
- **Average Absolute Difference: 2.4**
- **Matching Predictions: 8**
- **Predictions Within 5 Places: 16**

Team	Our Ranking	OPTA's Ranking	Delta	Absolute Delta
Liverpool	1	1	0	0
Arsenal	2	2	0	0
Notttingham Forest	3	3	0	0
Manchester City	4	4	0	0
AFC Bournemouth	5	5	0	0
Newcastle United	6	13	7	7
Wolverhampton	7	6	-1	1
Crystal Palace	8	10	2	2
Tottenham	9	12	3	3
Fulham	10	16	6	6
Brentford	11	11	0	0
Aston Villa	12	8	-4	4
Chelsea	13	18	5	5
West Ham	14	15	1	1
Everton	15	9	-6	6
Brighton	16	14	-2	2
Ipswich Town	17	7	-10	10
Manchester United	18	17	-1	1
Leicester City	19	19	0	0
Southampton	20	20	0	0



COMPARISON

	Avg. Points	OPTA	Our Model
1.	89,8	1. 88,7	1. 92,3
2.	84,8	2. 77,6	2. 89,6
3.	75,0	3. 74,0	3. 79,4
4.	69,3	4. 61,7	4. 74,5
5.	67,0	5. 60,5	5. 73,1
6.	62,0	6. 58,5	6. 72,5
7.	59,8	7. 58,2	7. 67,7
8.	58,3	8. 54,1	8. 62,3
9.	55,3	9. 52,7	9. 55,7
10.	52,8	10. 49,1	10. 54,7
11.	49,3	11. 49,0	11. 52,1
12.	46,3	12. 48,0	12. 50,2
13.	44,8	13. 46,7	13. 41
14.	43,8	14. 46,3	14. 38,1
15.	42,5	15. 45,1	15. 34,1
16.	39,3	16. 42,5	16. 32
17.	37,3	17. 39,3	17. 30
18.	30,8	18. 35,0	18. 29,3
19.	26,0	19. 34,1	19. 26,5
20.	21,5	20. 33,9	20. 24,9





CONCLUSION

COMPARISON

FINDINGS

HISTORY

ACCURACY

CONTEXT

VARIABLES

