

Predicting the 2025 NBA MVP

What defines the Modern Era?

In their 2021 study, "The Three Eras of the NBA Regular Seasons: Historical Trend and Success Factors," João Vítor Rocha da Silva and Paulo Canas Rodrigues analyze the evolution of NBA gameplay from the 1979–80 to 2018–19 seasons. They identify three distinct eras:

1. Classic Era (1980–1994): Emphasized two-point shots, offensive rebounds, free throws, steals, and blocks. Teams focused on scoring near the basket with limited three-point usage.
2. Transitional Era (1995–2013): Marked by a shift toward perimeter shooting. The NBA temporarily shortened the three-point line in 1994–95, accelerating the trend.
3. Modern Era (2014–present): Defined by heavy three-point shooting, spacing, and the rise of small-ball lineups. Teams prioritize versatility, shooting, and defensive rebounding.

The Question and Method

This analysis explores the question:

"What makes an MVP season in the Modern Era of the NBA?"

To answer this, we used a Random Forest Classifier, a machine learning model capable of identifying patterns in nonlinear data and ranking feature importance. By training the model on player-season data from 2014 onward, we identified which advanced stats best distinguish MVPs from non-MVPs.

This allowed us to build a composite MVP score, a data-driven metric that weights each stat by its importance in predicting MVP candidacy.

The MVP Formula

Composite Score =

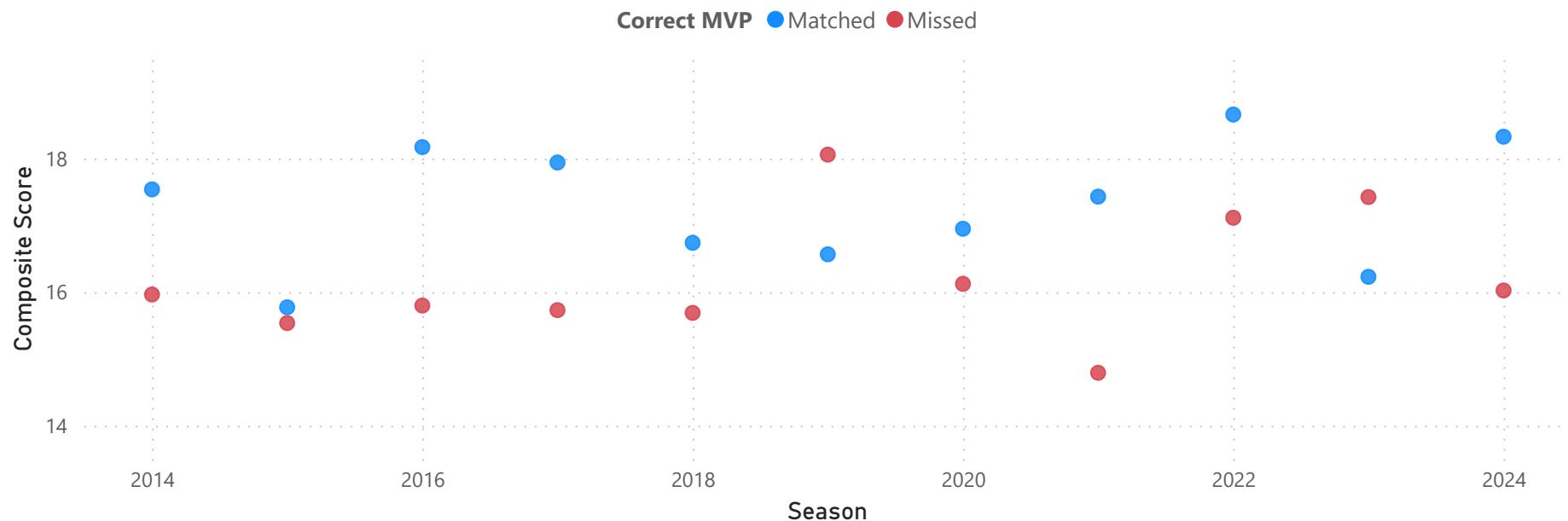
$$(0.284 \times \text{BPM}) + (0.282 \times \text{VORP}) + (0.220 \times \text{PER}) + (0.122 \times \text{WS}) + (0.092 \times \text{USG\%}) + (0.001 \times \text{TS\%})$$

Stat Descriptions:

- BPM (Box Plus/Minus): Measures a player's per-100-possession impact relative to an average player.
- VORP (Value Over Replacement Player): Captures overall season value above a replacement-level player.
- PER (Player Efficiency Rating): Per-minute rating that summarizes a player's positive and negative box score contributions.
- WS (Win Shares): Estimates how many wins a player contributed to their team.
- USG% (Usage Rate): Share of team possessions a player uses while on the court.
- TS% (True Shooting %): Efficiency metric that incorporates field goals, 3-pointers, and free throws.

Performance in the Modern Era (2014 - 2024): Composite Score Predicting Correct MVPs

Composite Score of 1st and 2nd Ranked Players by Season



Takeaways:

- In the Modern Era, 9 out of 11 MVPs were the player with the highest composite score. This indicates that the composite score is a strong predictor of MVP selection.
- The remaining 2 MVPs had the second-highest composite score. This shows that while the highest composite score tends to correlate with the MVP, it's not always a guarantee, and the second-highest is still a contender.
- The 2 instances where the player with the highest composite score didn't win the MVP came in back-to-back seasons where the player had already won the MVP the previous year. This suggests the possibility of "voter fatigue," where voters are hesitant to award the MVP to the same player two years in a row.

Top Two Ranked Players, by Composite Score, each season with MVP match or miss

rank	1			2		
	season	Player	Composite Score	Correct MVP?	Player	Composite Score
2014	Kevin Durant	17.54	Matched	LeBron James	15.97	Missed
2015	Stephen Curry	15.77	Matched	James Harden	15.54	Missed
2016	Stephen Curry	18.17	Matched	Kevin Durant	15.80	Missed
2017	Russell Westbrook	17.94	Matched	James Harden	15.73	Missed
2018	James Harden	16.74	Matched	LeBron James	15.69	Missed
2019	James Harden	18.06	Missed	Giannis Antetokounmpo	16.57	Matched
2020	Giannis Antetokounmpo	16.95	Matched	James Harden	16.13	Missed
2021	Nikola Jokić	17.43	Matched	Giannis Antetokounmpo	14.79	Missed
2022	Nikola Jokić	18.66	Matched	Giannis Antetokounmpo	17.11	Missed
2023	Nikola Jokić	17.42	Missed	Joel Embiid	16.23	Matched
2024	Nikola Jokić	18.33	Matched	Luka Dončić	16.03	Missed

Correct MVP Match % (Top Score)

0.82

% Match (Top Pick)

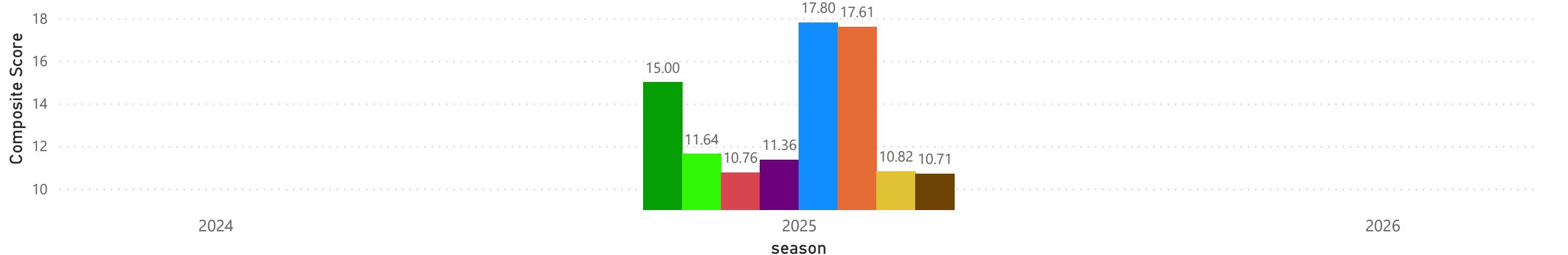
Correct MVP Match % (Top Two Scores)

1.00

% Match (Top Two Picks)

2025 Season - Composite Score Leaders

player ● Giannis Antetokounmpo ● Jayson Tatum ● Karl-Anthony Towns ● LeBron James ● Nikola Jokić ● Shai Gilgeous-Alexander ● Stephen Curry ● Tyrese Haliburton



Nikola Jokic

Team Record: 48 - 32 (4th in the West)
3x MVP (2021, 2022, 2024)
Per Game Stats: 29.8 PTS, 12.8 REB, 10.2 AST



Shai Gilgeous-Alexander

Team Record: 66 - 14 (1st in the West)
0 MVP awards won
Per Game Stats: 32.7 PTS, 5 REB, 6.4 AST

MVP Prediction:
Shai Gilgeous-Alexander