

Visualization over 2021-22 NBA season with Tidyverse + Huxable.

Data Visualizations for NBA Analytics

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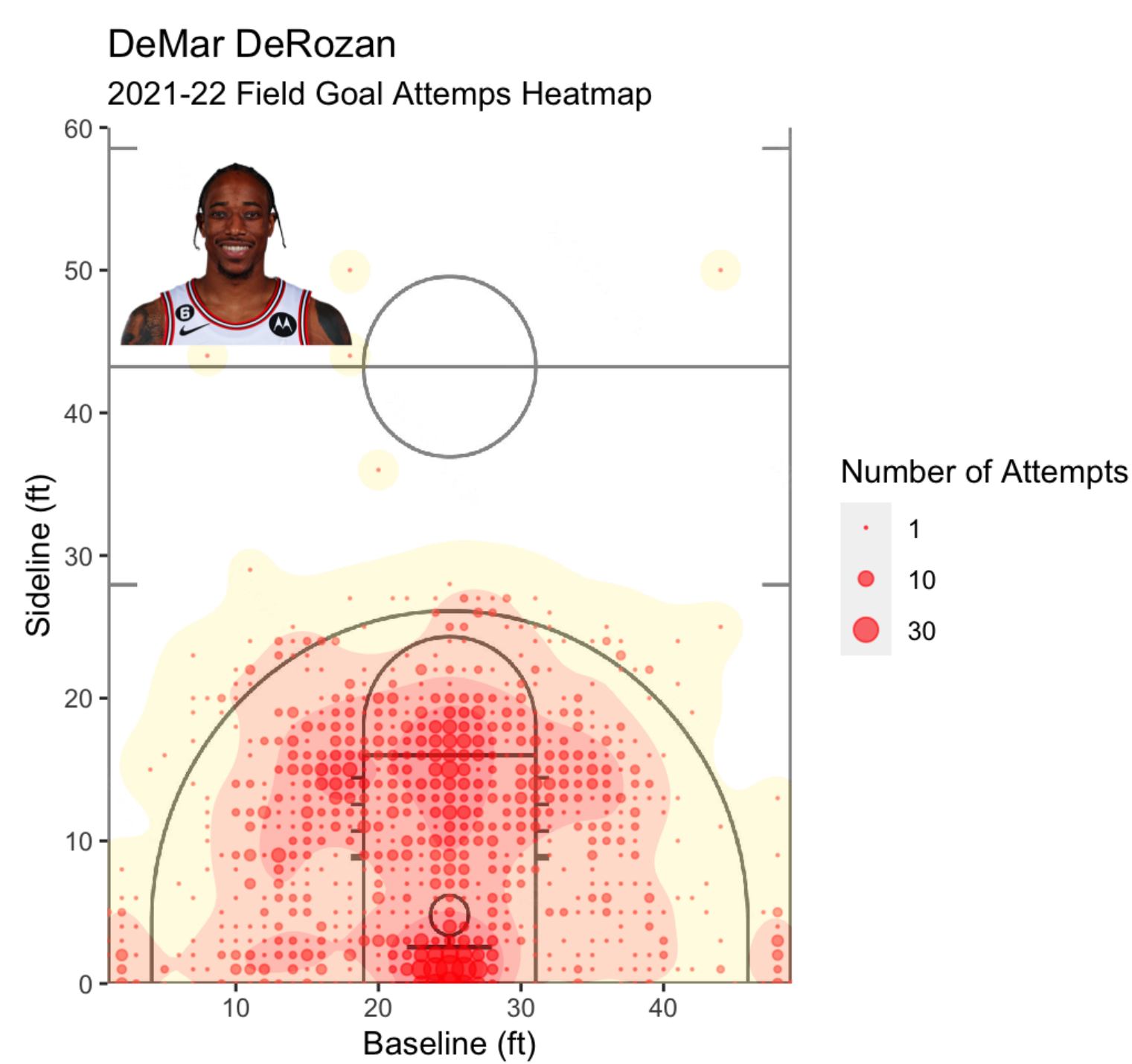
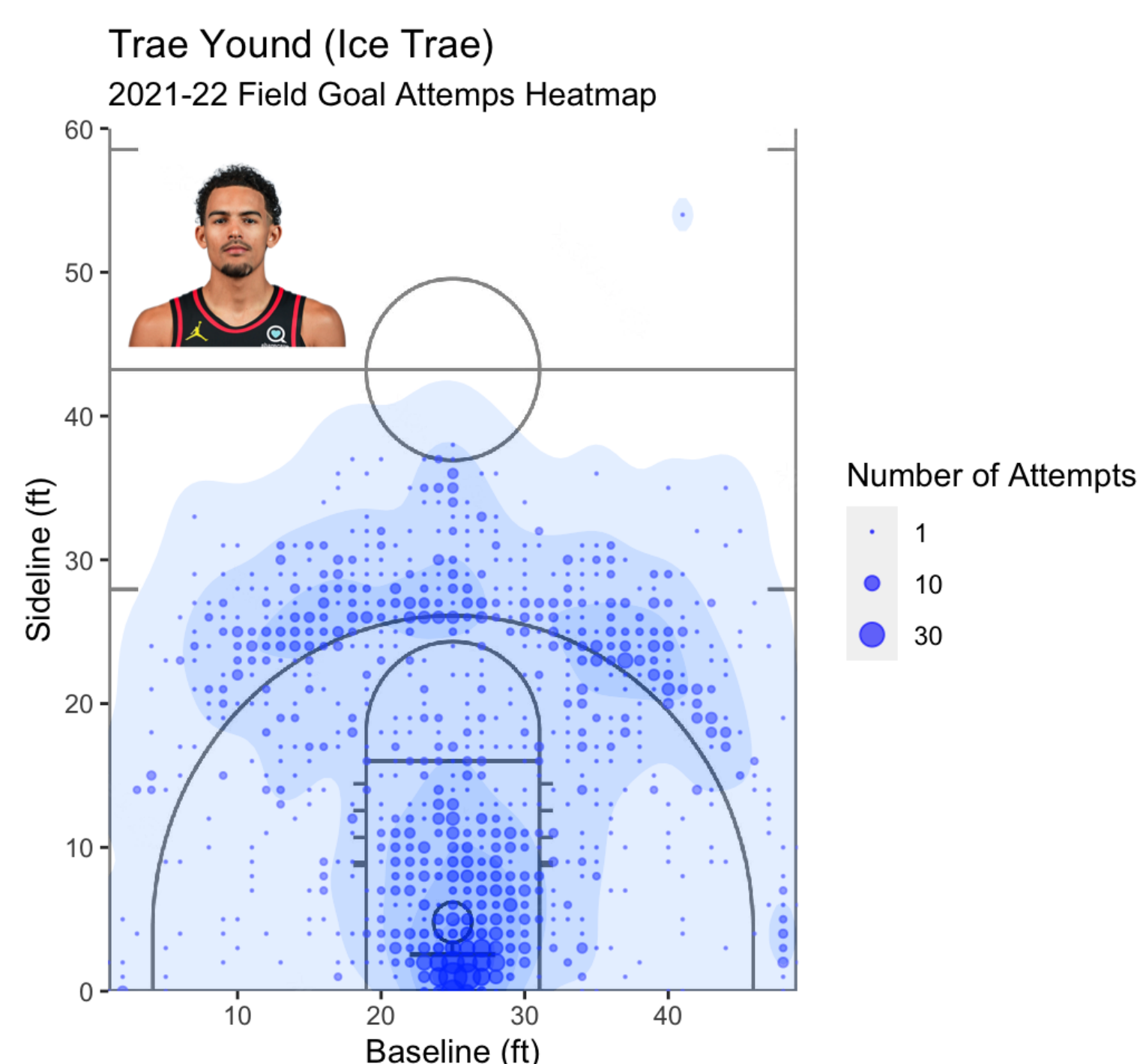
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STAT442 - Visualization, University of Waterloo

Shot Attempts Heat Map

2D Continuous Element

The new generation players like Trae Young are shooting more **three-pointers** than ever, while the last **mid-range** master DeMar DeRozan scores most of his points inside the three point line.

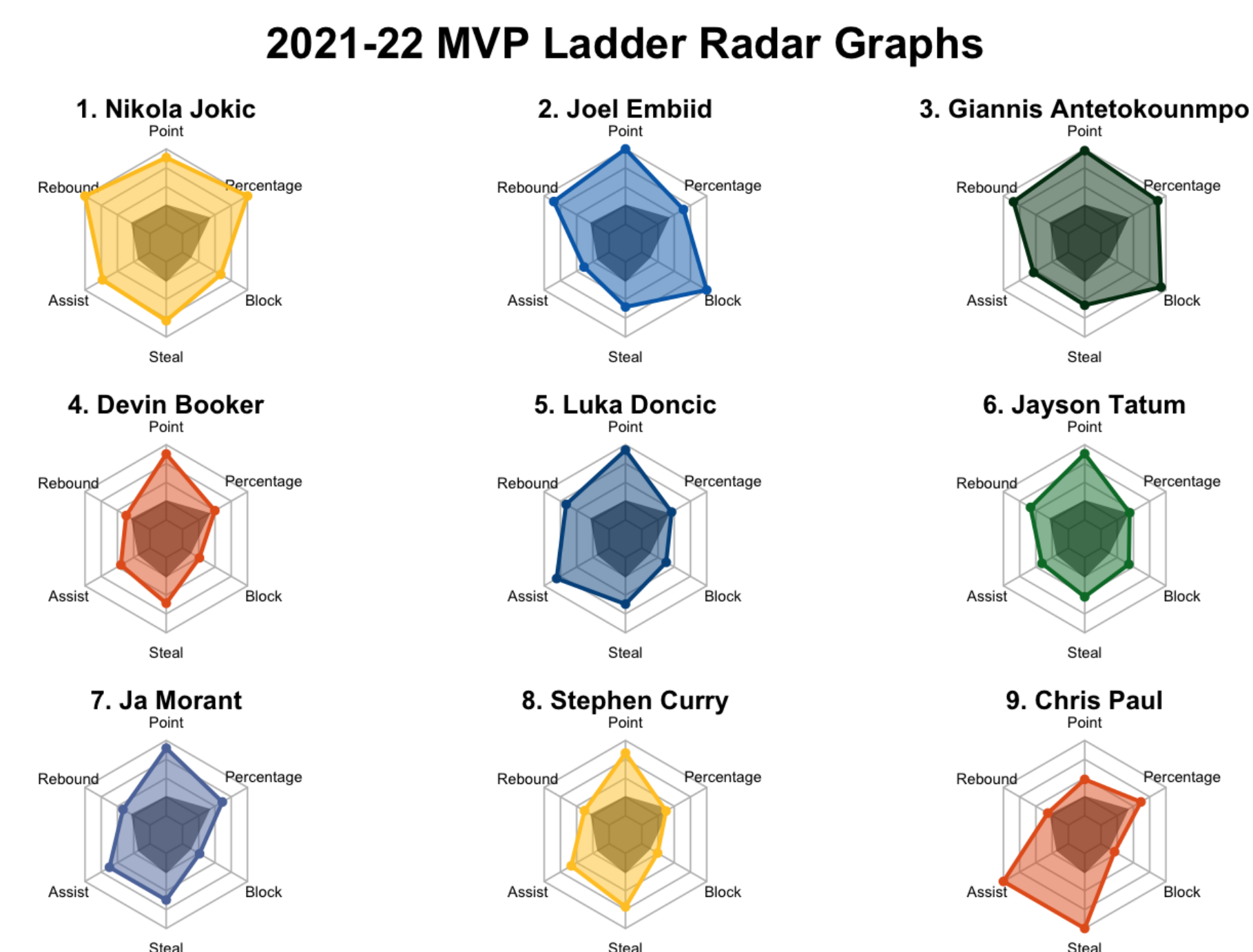


Both the width and length of the plots are **continuous** variables, the contour plot is also interpolated using the location and frequency of the data points to display the plays' unique favorite areas to attack.

Top 9 players in MVP voting

Categorical Element (Facet)

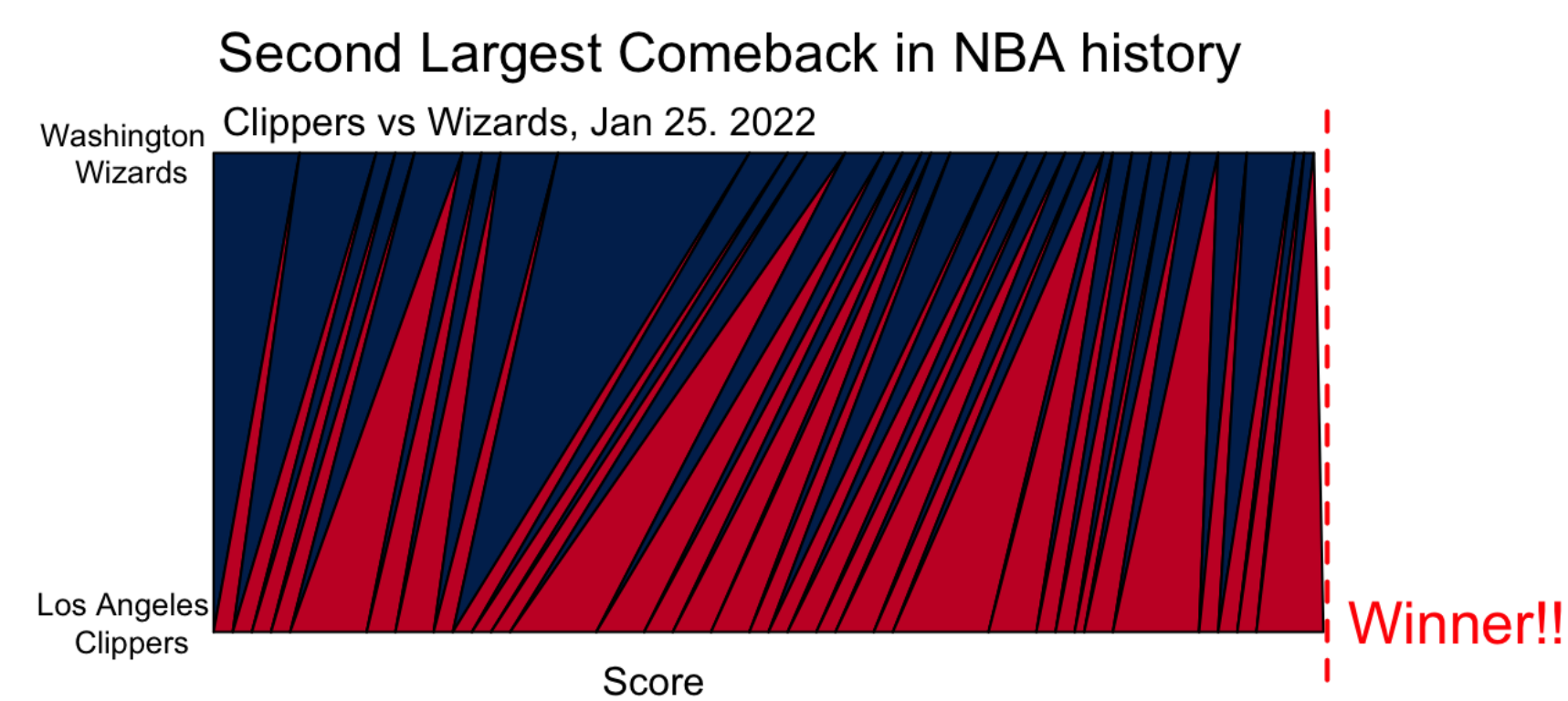
There are tons of new faces in the **MVP ladder**, players like Luka Doncic, Ja Morant, and the Joker are all dominating the league in their own way.



The radar graphs are faceted by players, and the grey area in each plot is the average statistics for all NBA players.

Score Plot for a NBA game

Homebrewed



The graph above is created using R default **polygons** and **lines**. The horizontal axis represents the score for each team, with the bottom edge representing Clipper's score and the top edge representing Wizard's score. The lines between the top and bottom edges represent an instant of the game. The location where those lines connect with the top and bottom edge is the score for each team at that instant respectively. The polygons are colored with the teams' team color, the dark blue polygons represent a period of time when the Wizards are scoring, and the red polygons represent the period when the clippers are scoring.

I didn't add any value on the edges because I believe that would add too many numbers and might confuse the audience, the purpose of this graph is to display which team was ahead at each period and the process of the game.

Teams' Scoring Duo

Wildcard

The age of Big Threes is over now, more and more teams are aiming for only **2 core/stars** in their lineup. Lets check out the scoring duos of each team!

Team_Name	Combined_ppg	Player_1	Player_1_ppg	Player_2	Player_2_ppg
Bulls	52.3	DeMar DeRozan	27.9	Zach LaVine	24.4
Nets	51.9	Kevin Durant	29.9	James Harden	22
Celtics	50.5	Jayson Tatum	26.9	Jaylen Brown	23.6
Bucks	50	Giannis Antetokounmpo	29.9	Khris Middleton	20.1
Lakers	48.7	LeBron James	30.3	Russell Westbrook	18.5
76ers	48.1	Joel Embiid	30.6	Tyrese Maxey	17.5
Timberwolves	45.9	Karl-Anthony Towns	24.6	Anthony Edwards	21.3
Grizzlies	45.6	Ja Morant	27.4	Desmond Bane	18.2
Mavericks	44.7	Luka Doncic	28.4	Jalen Brunson	16.3
Hawks	44.6	Trae Young	28.4	John Collins	16.2
Jazz	44	Donovan Mitchell	25.9	Bojan Bogdanovic	18.1
Suns	44	Devin Booker	26.8	Deandre Ayton	17.2
Warriors	44	Stephen Curry	25.5	Jordan Poole	18.5
Raptors	43.1	Pascal Siakam	22.8	Fred VanVleet	20.3
Heat	42.1	Jimmy Butler	21.4	Tyler Herro	20.7
Nuggets	42.1	Nikola Jokic	27.1	Aaron Gordon	15
Thunder	41.7	Shai Gilgeous-Alexander	24.5	Luguentz Dort	17.2
Trail Blazers	41.1	CJ McCollum	22.1	Norman Powell	19
Pelicans	40.4	Brandon Ingram	22.7	Jonas Valanciunas	17.8
Hornets	40.2	Miles Bridges	20.1	LaMelo Ball	20.1
Knicks	40.1	Julius Randle	20.1	RJ Barrett	20
Kings	39.6	De'Aaron Fox	23.2	Harrison Barnes	16.4
Spurs	38.2	Dejounte Murray	21.1	Keldon Johnson	17
Cavaliers	37.8	Darius Garland	21.7	Jarrett Allen	16.1
Wizards	37.3	Kristaps Porzingis	20.2	Kyle Kuzma	17.1
Pistons	36.6	Jerami Grant	19.2	Cade Cunningham	17.4
Pacers	35.9	Domantas Sabonis	18.9	Caris LeVert	17
Rockets	35.2	Christian Wood	17.9	Jalen Green	17.3
Clippers	32.2	Reggie Jackson	16.8	Marcus Morris Sr.	15.4
Magic	31.5	Cole Anthony	16.3	Franz Wagner	15.2

*ppg - Points per Game

The table is built using Huxtable, ordered by the **combined ppg** for each teams' scoring duo. The numeric columns are color coded, where red is the highest and blue is the lowest in the column. The ideal range of values in a table is 6-40, however, I believe in this case the number of value is acceptable since the table functions as a stats sheet.

