



STATS ANALYSIS

An NBA exploratory career statistics analysis

Avg. Reading time: 5 minutes

DATASET

- Data from basketball-reference website
- Use of players per-game data for every season from 1955 to 2023
- Total of 27845 records
- Use of MVP & Championship data
- Implemented only with python on jupyter notebook



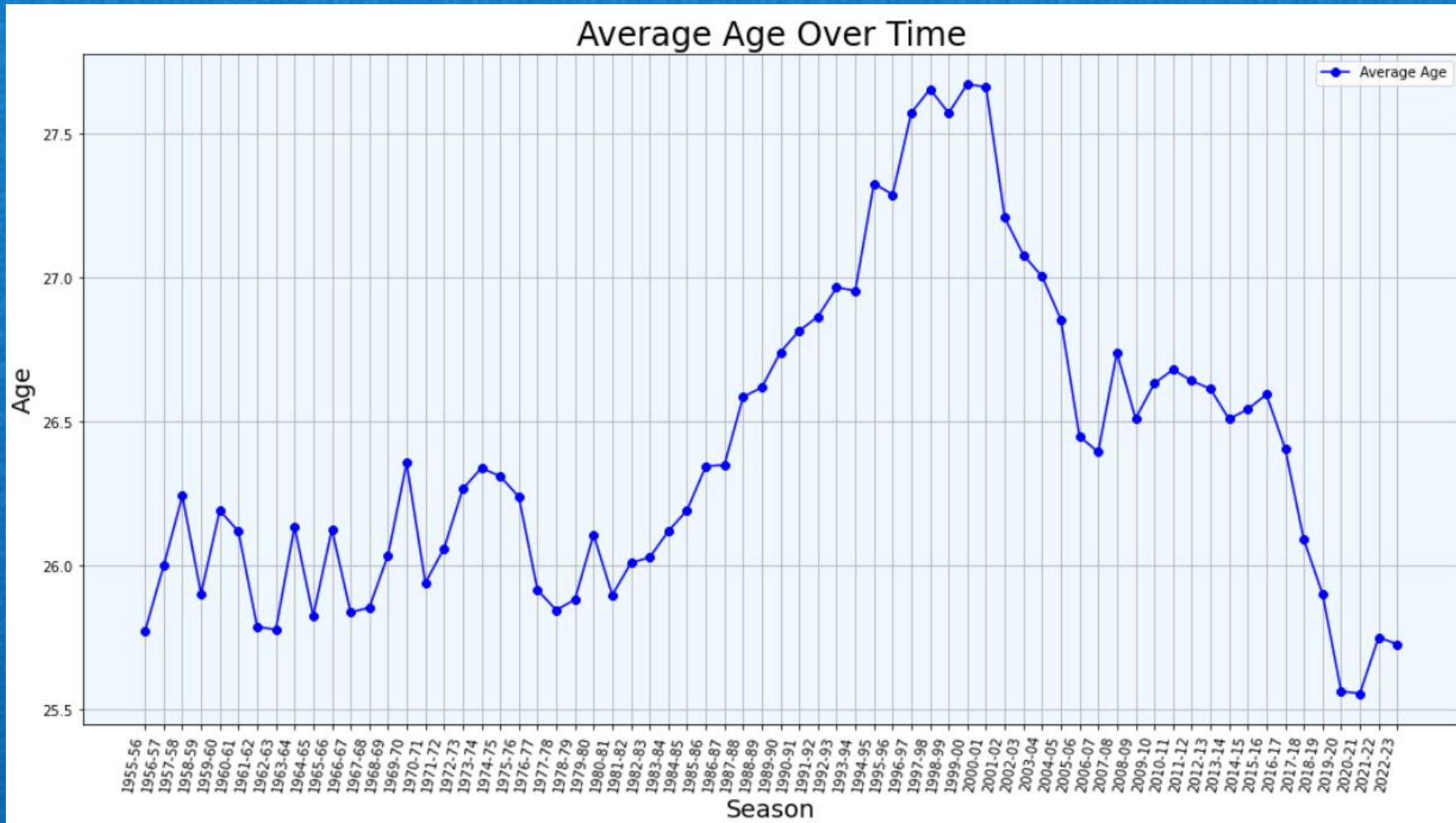
DATA PREVIEW

Rk	Player	Pos	Age	Tm	G	GS	MP	FG	FGA	FG%	3P	3PA	3P%	2P	2PA	2P%	eFG%	FT	FTA	FT%	ORB	DRB	TRB	AST	STL	BLK	TOV	PF	PTS
1	Precious Achiuwa	C	23	TOR	55	12	20.7	3.6	7.3	.485	0.5	2.0	.269	3.0	5.4	.564	.521	1.6	2.3	.702	1.8	4.1	6.0	0.9	0.6	0.5	1.1	1.9	9.2
2	Steven Adams	C	29	MEM	42	42	27.0	3.7	6.3	.597	0.0	0.0	.000	3.7	6.2	.599	.597	1.1	3.1	.364	5.1	6.5	11.5	2.3	0.9	1.1	1.9	2.3	8.6
3	Bam Adebayo	C	25	MIA	75	75	34.6	8.0	14.9	.540	0.0	0.2	.083	8.0	14.7	.545	.541	4.3	5.4	.806	2.5	6.7	9.2	3.2	1.2	0.8	2.5	2.8	20.4
4	Ochai Agbaji	SG	22	UTA	59	22	20.5	2.8	6.5	.427	1.4	3.9	.355	1.4	2.7	.532	.532	0.9	1.2	.812	0.7	1.3	2.1	1.1	0.3	0.3	0.7	1.7	7.9
5	Santi Aldama	PF	22	MEM	77	20	21.8	3.2	6.8	.470	1.2	3.5	.353	2.0	3.4	.591	.560	1.4	1.9	.750	1.1	3.7	4.8	1.3	0.6	0.6	0.8	1.9	9.0
6	Nickeil Alexander-Walker	SG	24	TOT	59	3	15.0	2.2	5.0	.444	1.0	2.7	.384	1.2	2.3	.515	.547	0.7	1.0	.667	0.3	1.5	1.7	1.8	0.5	0.4	0.9	1.5	6.2
6	Nickeil Alexander-Walker	SG	24	UTA	36	3	14.7	2.3	4.7	.488	1.0	2.4	.402	1.3	2.3	.578	.591	0.8	1.1	.692	0.2	1.4	1.6	2.1	0.7	0.4	1.3	1.6	6.3
6	Nickeil Alexander-Walker	SG	24	MIN	23	0	15.5	2.1	5.4	.384	1.1	3.1	.361	1.0	2.3	.415	.488	0.6	0.9	.619	0.3	1.5	1.8	1.4	0.3	0.3	0.4	1.3	5.9
7	Grayson Allen	SG	27	MIL	72	70	27.4	3.4	7.7	.440	2.0	5.1	.399	1.4	2.7	.518	.571	1.6	1.8	.905	0.8	2.4	3.3	2.3	0.9	0.2	1.0	1.6	10.4

- Each row is the per-game stats for a player in a particular season for a particular team



VISUALIZATION OVER TIME



VISUALIZATION OVER TIME

Percentage of under-24 y.o. players per season



VISUALIZATION OVER TIME

NBA average 3-point attempts per game over seasons

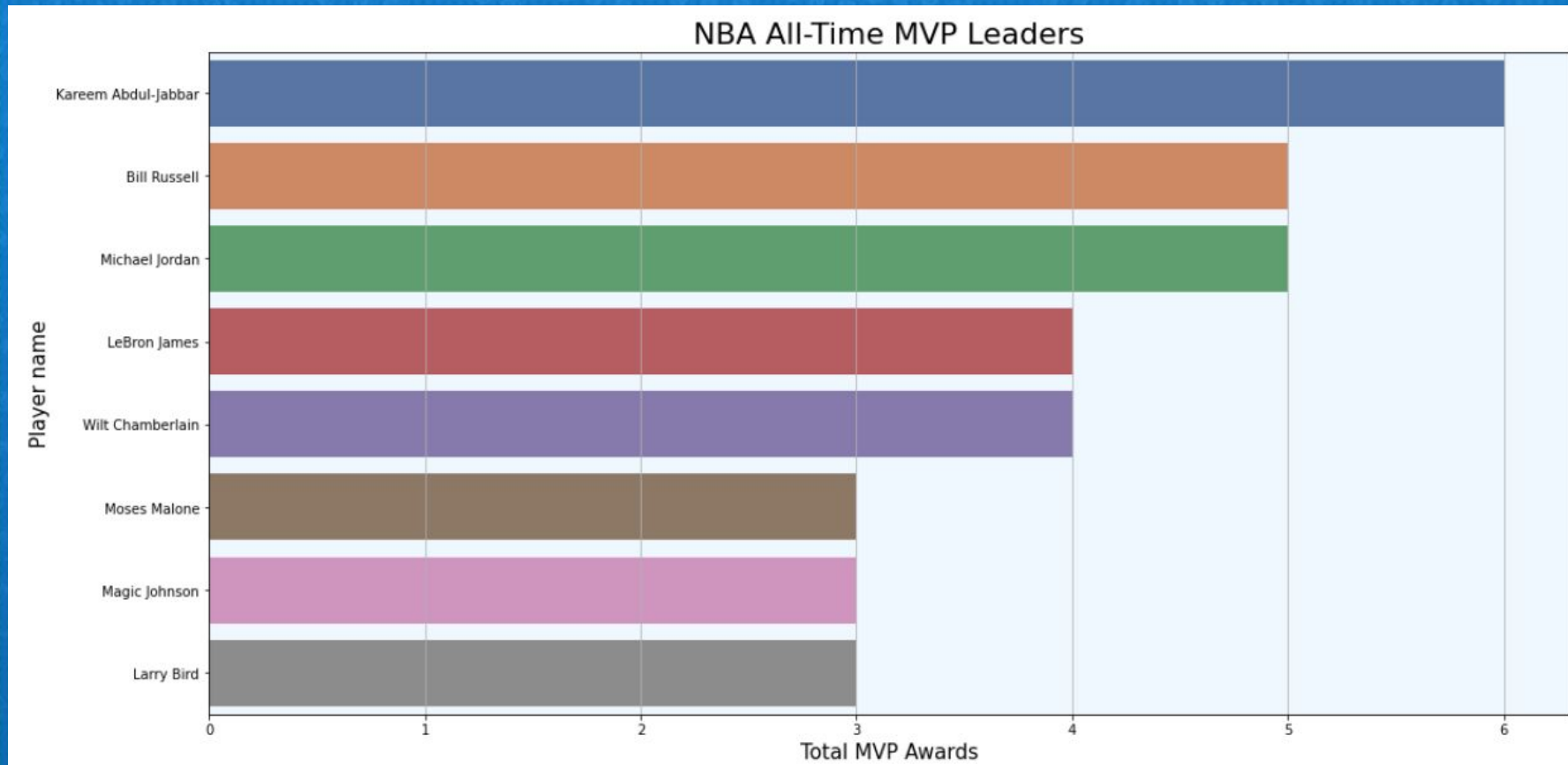


CONCLUSIONS

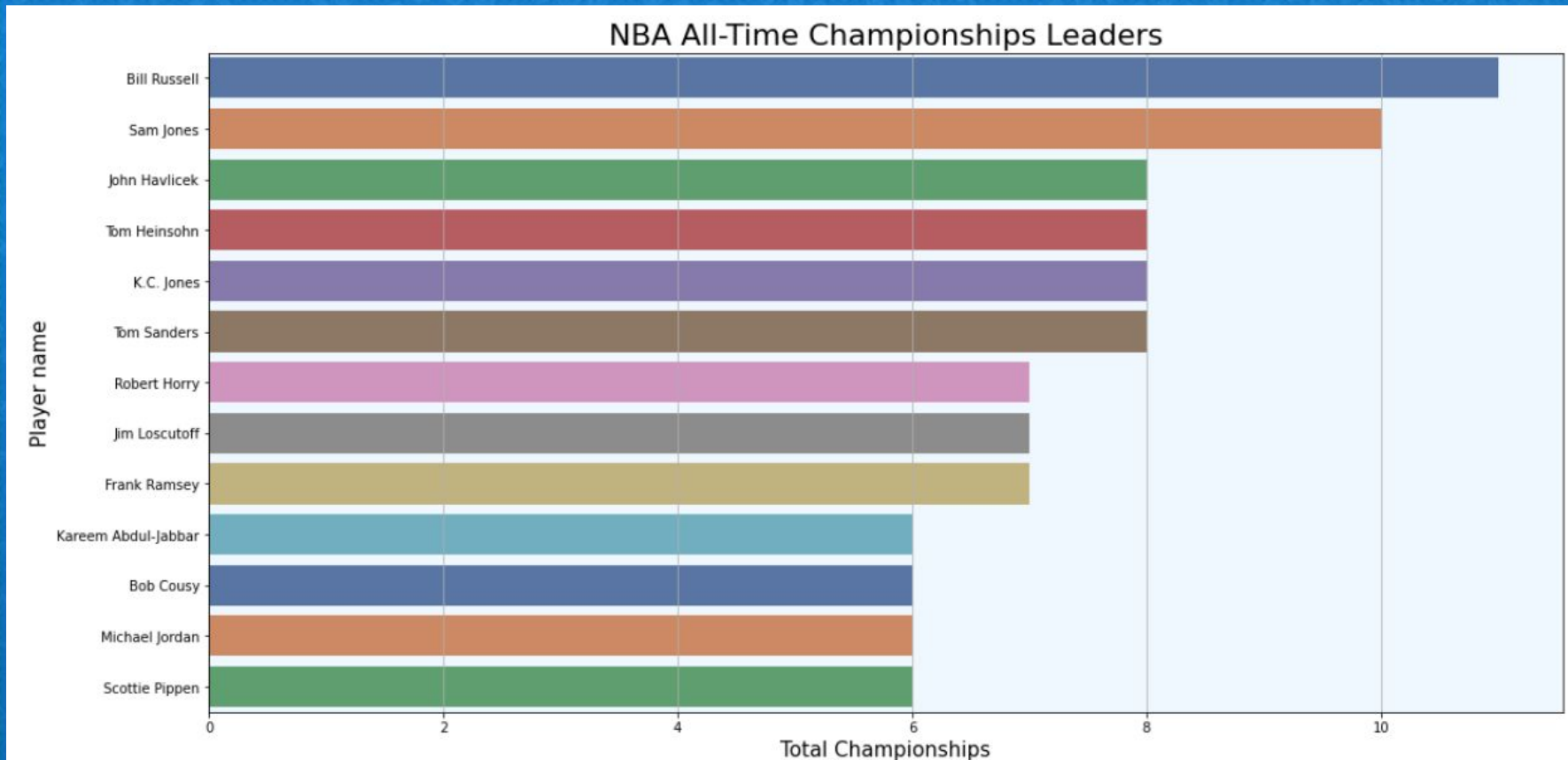
- After the 1990s with the traditional big men and post-up game focus, the NBA is becoming a young players' league
- The game is evolving, becoming quicker, more possessions (early shot-clock offence) and more 3-point shots (even in transition)
- As a result, young players can make a big difference with their athletic ability and stamina
- The 3-point shot has become a vital skill for players' and teams' success



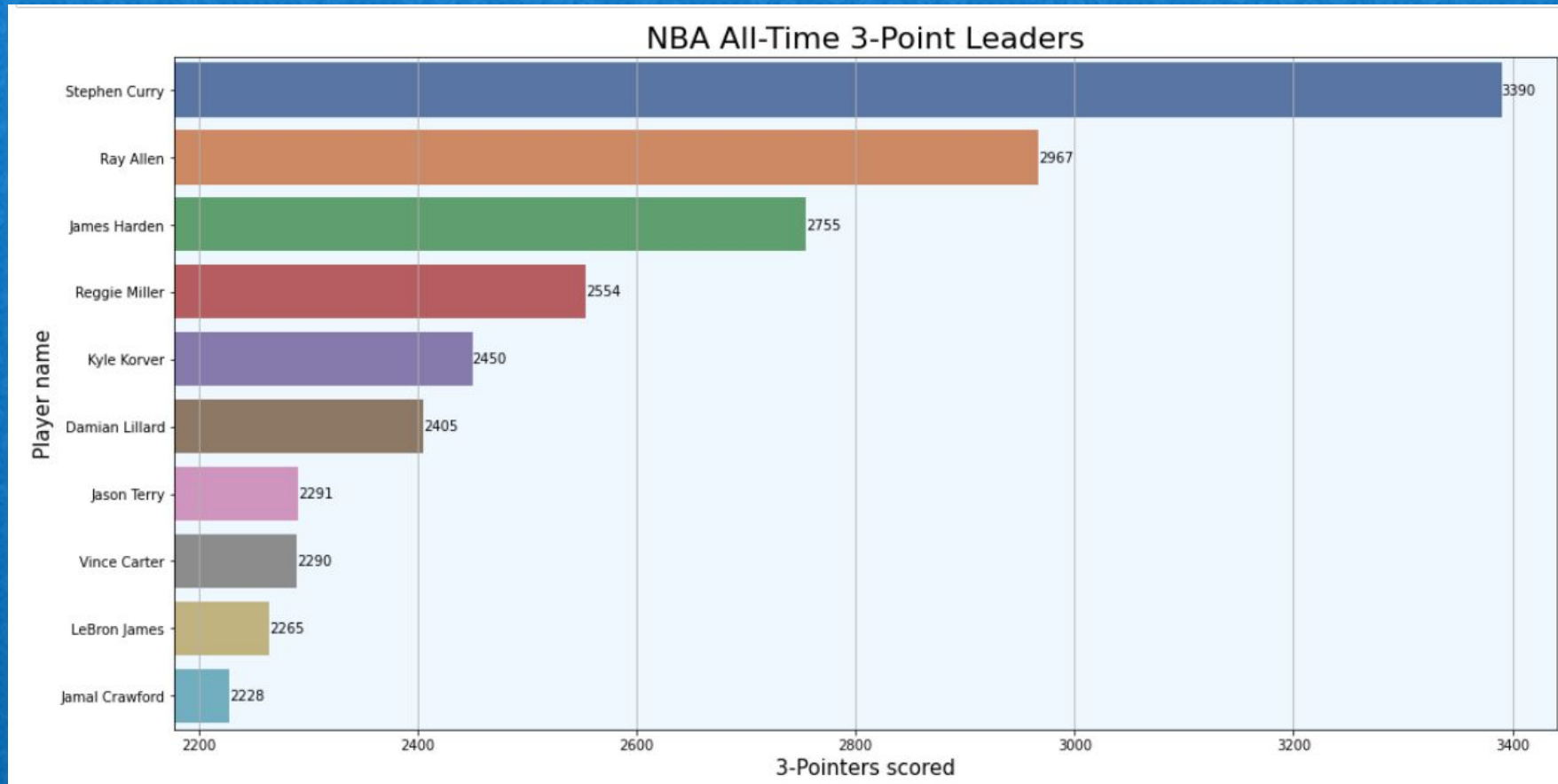
Career Stats Visualization



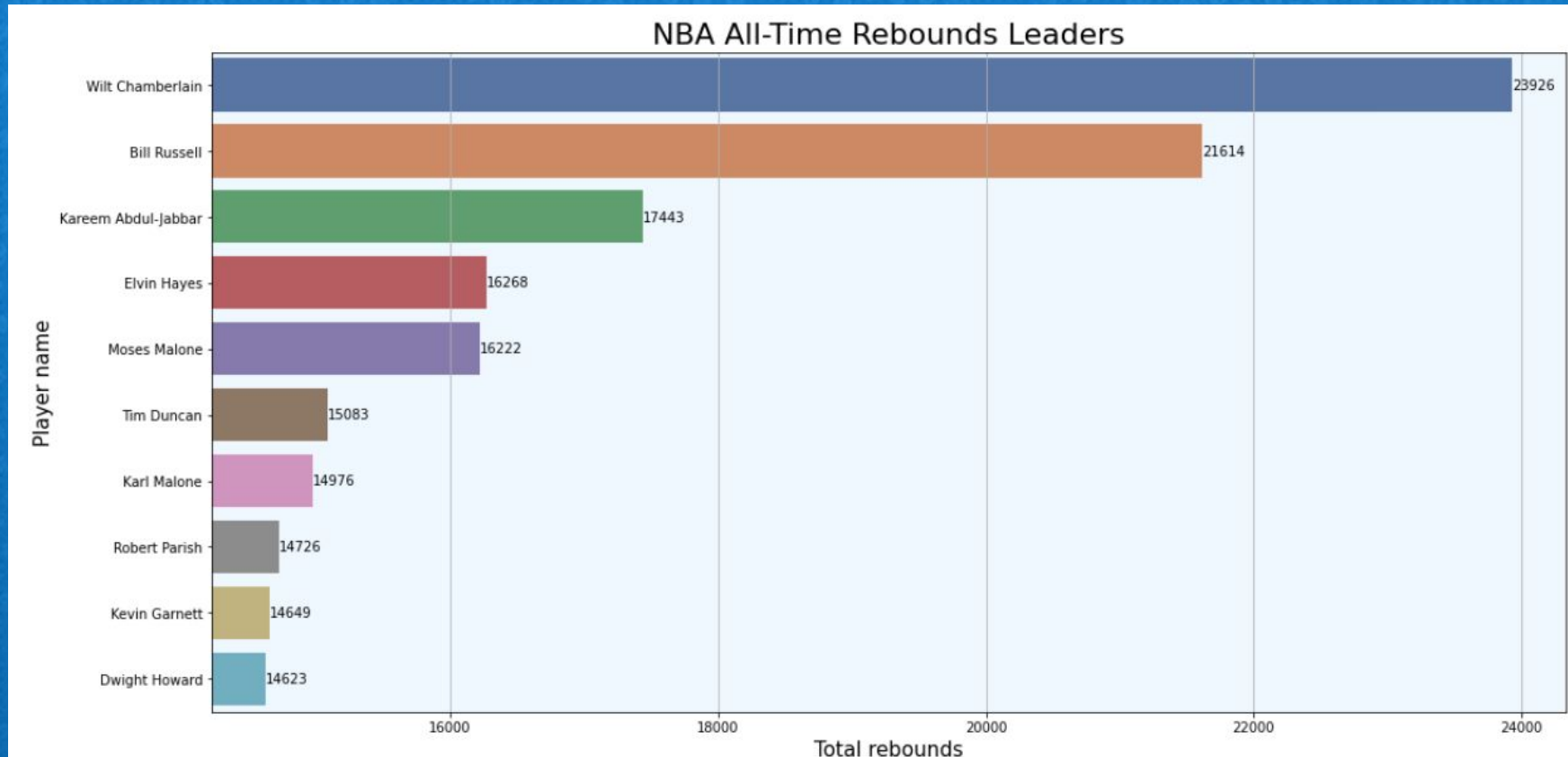
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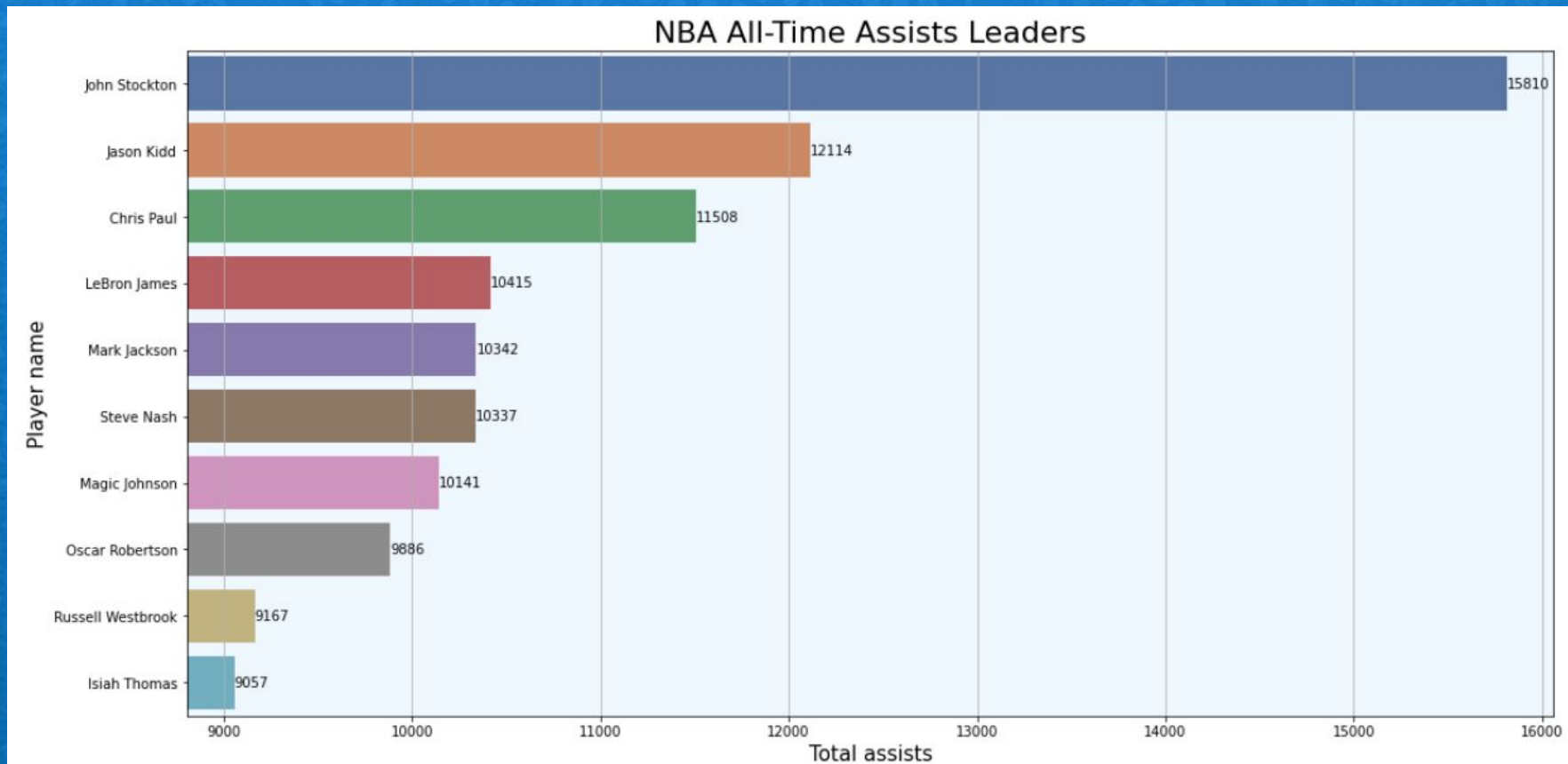
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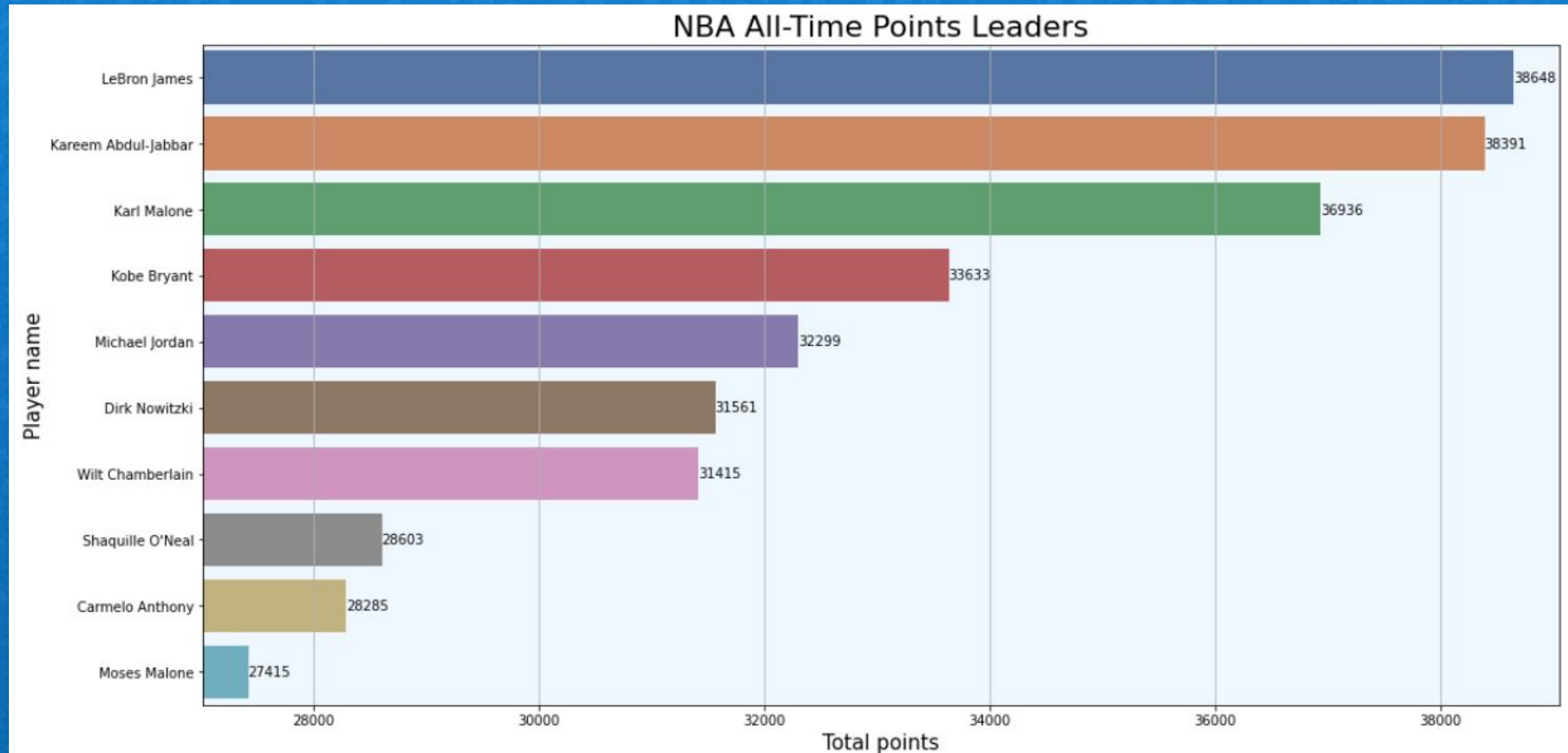
Career Stats Visualization



Career Stats Visualization

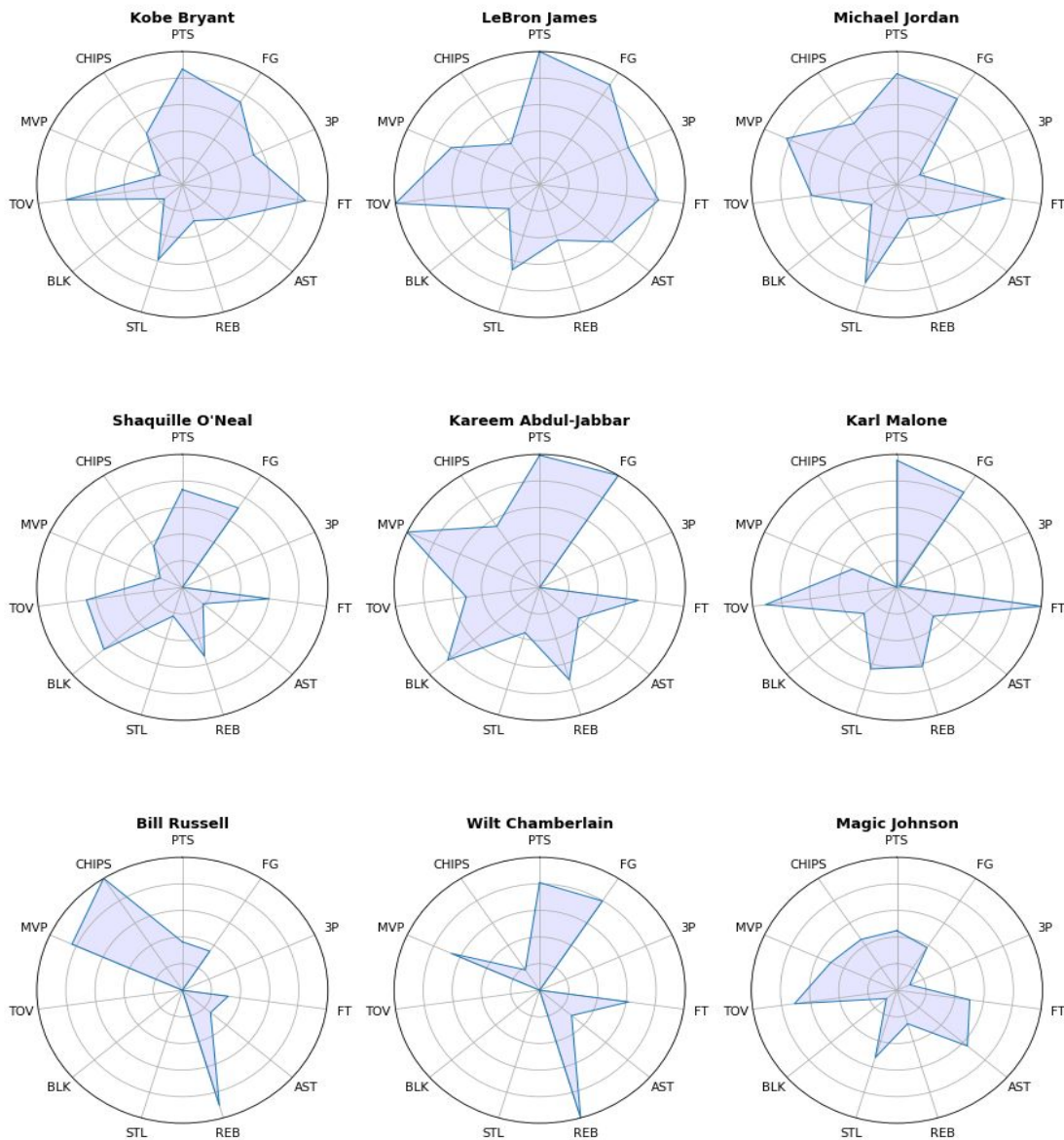


Career Stats Visualization



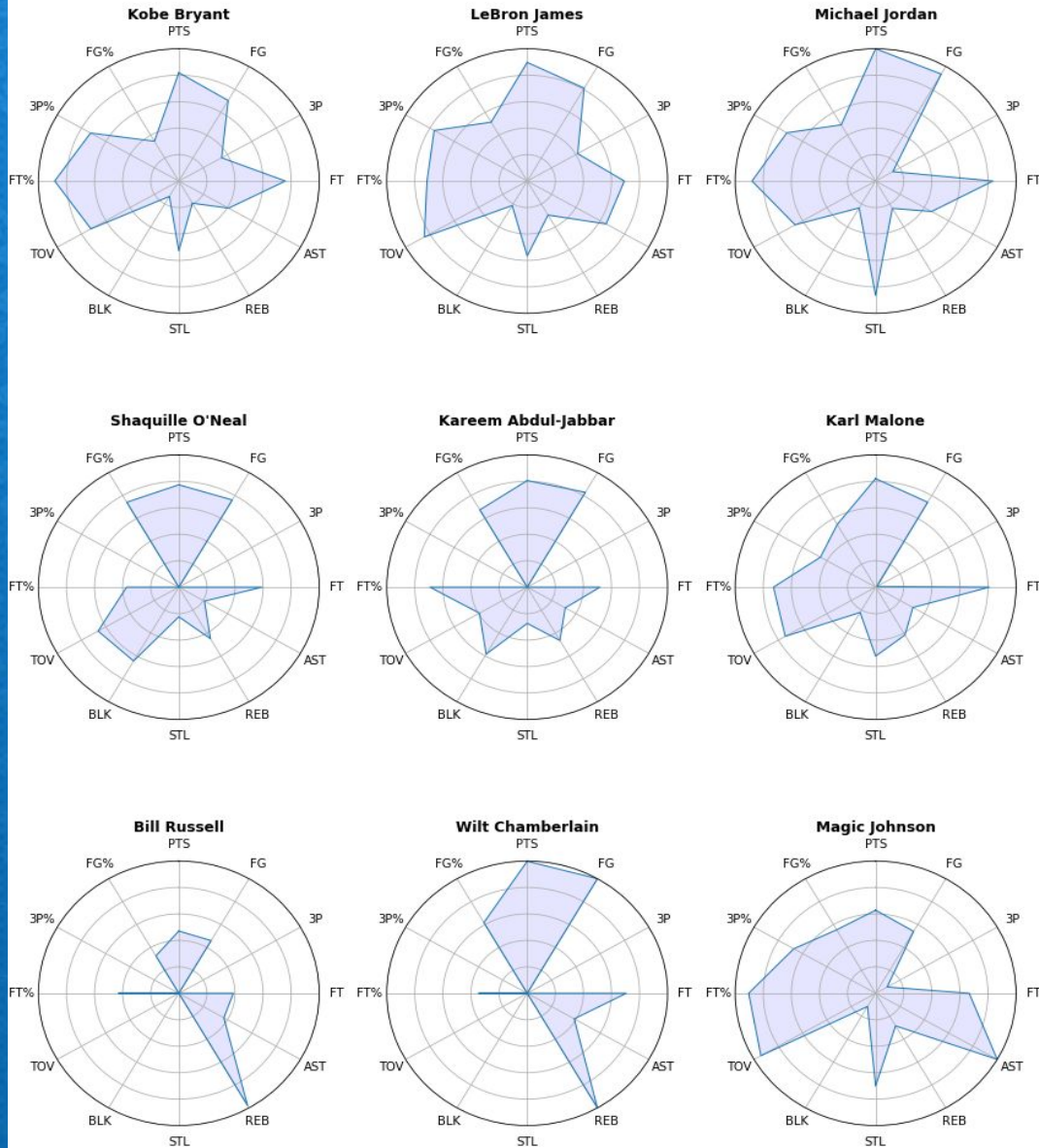
GOAT Comparison

All-Time Greats Total Career-Stats



GOAT Comparison

All-Time Greats Per-Game Stats



CONCLUSIONS

- The total-career stats radar-plots are great to see where each great dominated during his career.
- LeBron James and Kareem Abdul-Jabbar have had the greatest NBA careers stat-wise.
- The per-game radar plots are excellent to see how the greats affected their games
- Michael Jordan and LeBron James are head-to-head the greatest players of all time.



REFERENCES

- [Complete Jupyter Notebook Analysis](#)
- <https://www.basketball-reference.com/>

