Dataset Analysis Report Template

Title: Lebron vs Jordan

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1. Introduction

I got my two datasets from Kaggle. The two datasets I chose were on various statistics between two basketball players, Lebron James and Micheal Jordan. I selected these datasets because I like basketball. The main goal of my analysis was to determine which of these two players is considered the GOAT, or greatest of all time. It is common knowledge that these two basketball players are the 2 best, but which is better.

2. Dataset Description

I got these datasets from Kaggle, it was recorded by the National Basketball Association.

The data has numeric data and non numeric data.

- game number (numeric)
- date (non numeric)
- age (numeric)
- team (non numeric)
- opponent (non numeric)
- result (non numeric)
- minutes played (numeric)

- field goals made (numeric)
- field goals attempted (numeric)
- field goal percentage (numeric)
- three pointers made (numeric)
- three pointers attempted (numeric)
- three pointers percentage (numeric)
- free throws made (numeric)
- free throws attempted (numeric)
- free throw percentage (numeric)
- offensive rebounds (numeric)
- defensive rebounds (numeric)
- total rebounds (numeric)
- assists (numeric)
- steals (numeric)
- blocks (numeric)
- turnovers (numeric)
- points (numeric)
- game score (numeric)
- minus plus (numeric)

The dataset for lebron contained 1133 rows and 26 columns; the dataset for Jordan had 1073 rows and 26 columns. Most of the data is self explanatory if you know how to play basketball. I'm not explaining the rules and what a rebound is though. I had to clean up some of the data like age which went by the year-days. I made it go years(point)(days/365).

3. Methods Used

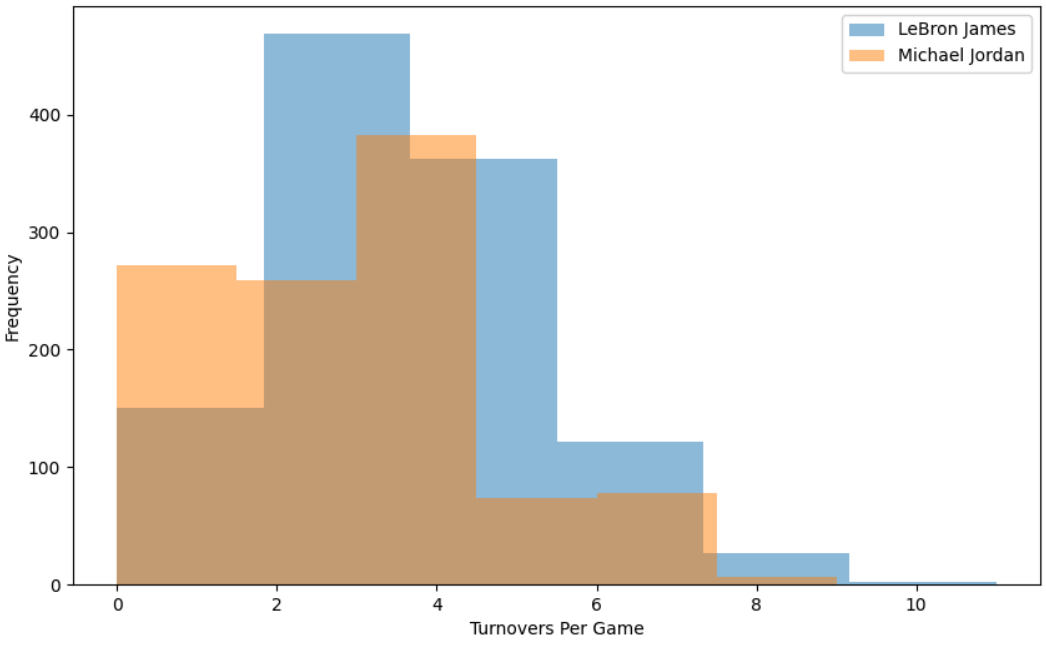
I used the standard things you told me to do, Pandas, Matplotlib. I also made my own function/method to automate the graph making process. The two data analysis things I used were sums for total turnovers and points for both players. I made histograms for the following items

- PTS (Points per game):
- AST (Assists per game):
- TRB (Rebounds per game):
- STL (Steals per game):
- BLK (Blocks per game):
- TOV (Turnovers per game):
- MP (Minutes played per game):

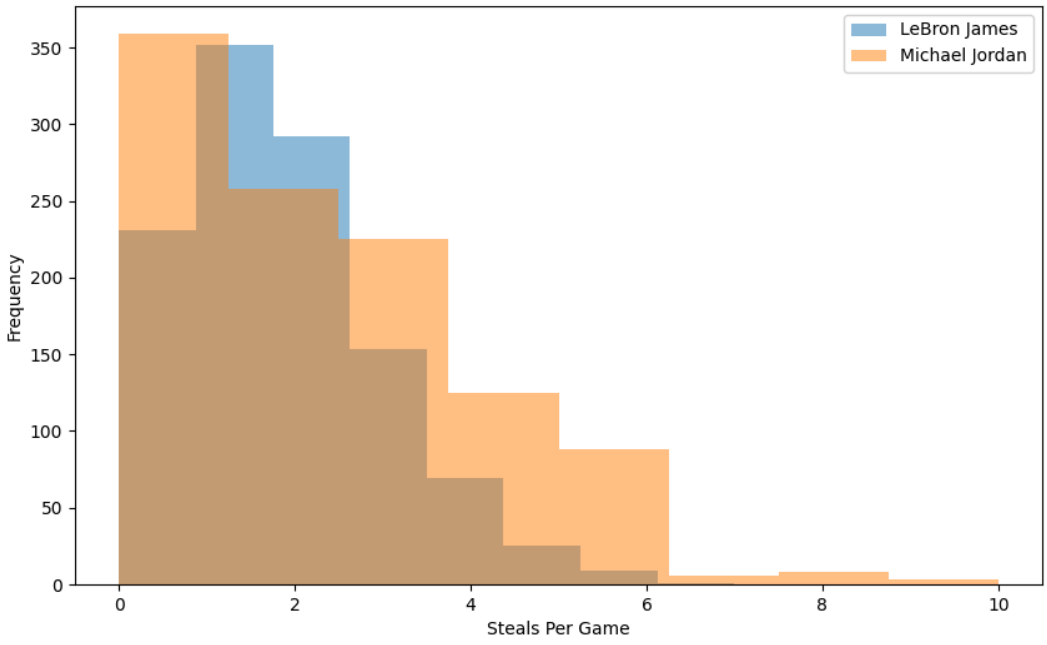
4. Key Observations & Findings

I found out that through the statistics, Micheal Jordan is the better player. The data shows that Micheal Jordan is better at scoring, getting steals, being efficient and not turning the ball over, and is generally playing more minutes. Lebron James is better at rebounding, getting assists, and blocking shots. However the data shown elaborates further explaining how Micheal Jordan is better than Lebron as he is closer to Lebron's stats than vice versa.

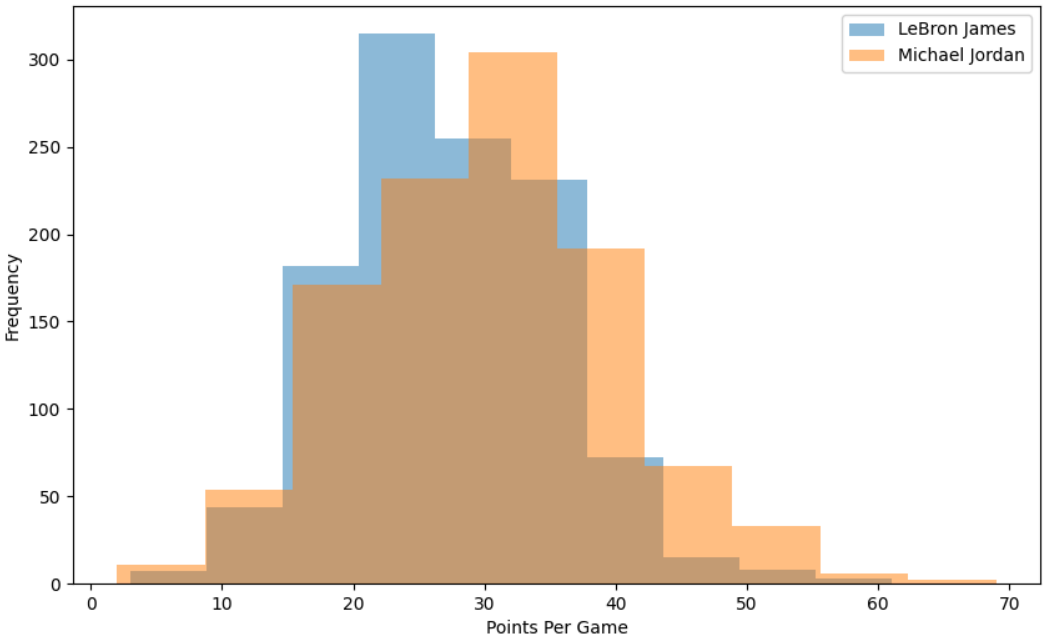
5. Visualizations



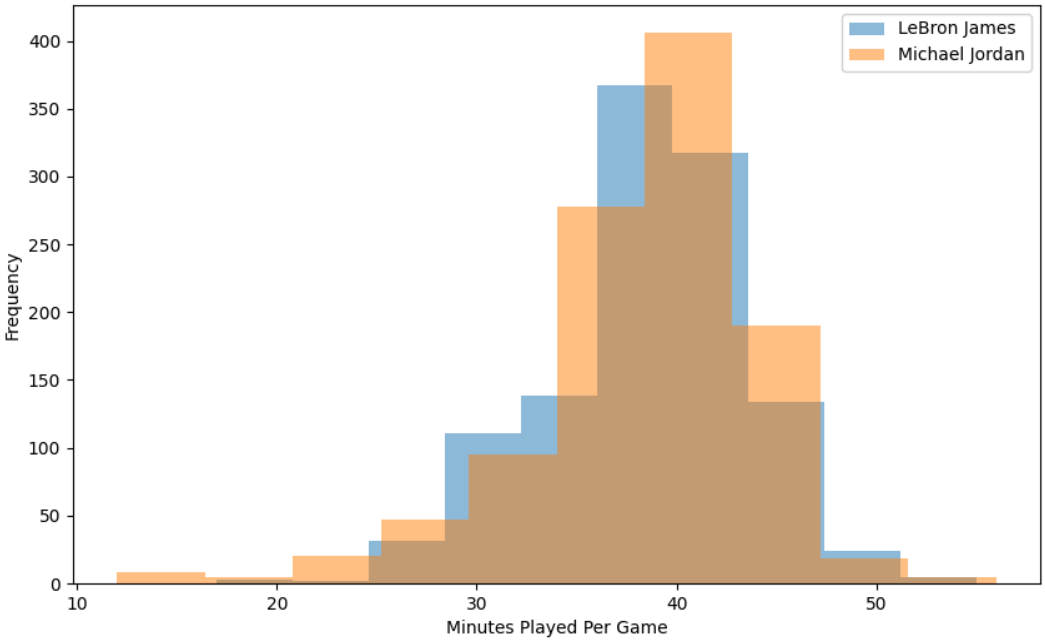
(Shows how Lebron has a higher frequency of more turnovers than MJ)



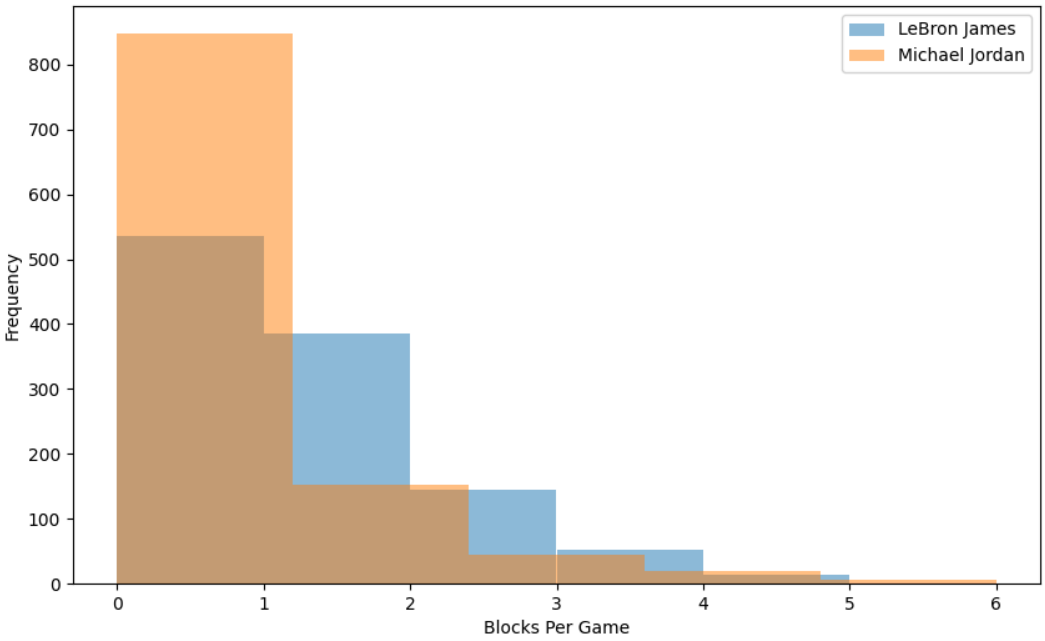
(Shows How Micheal Jordan has a higher steals frequency compared to Lebron)



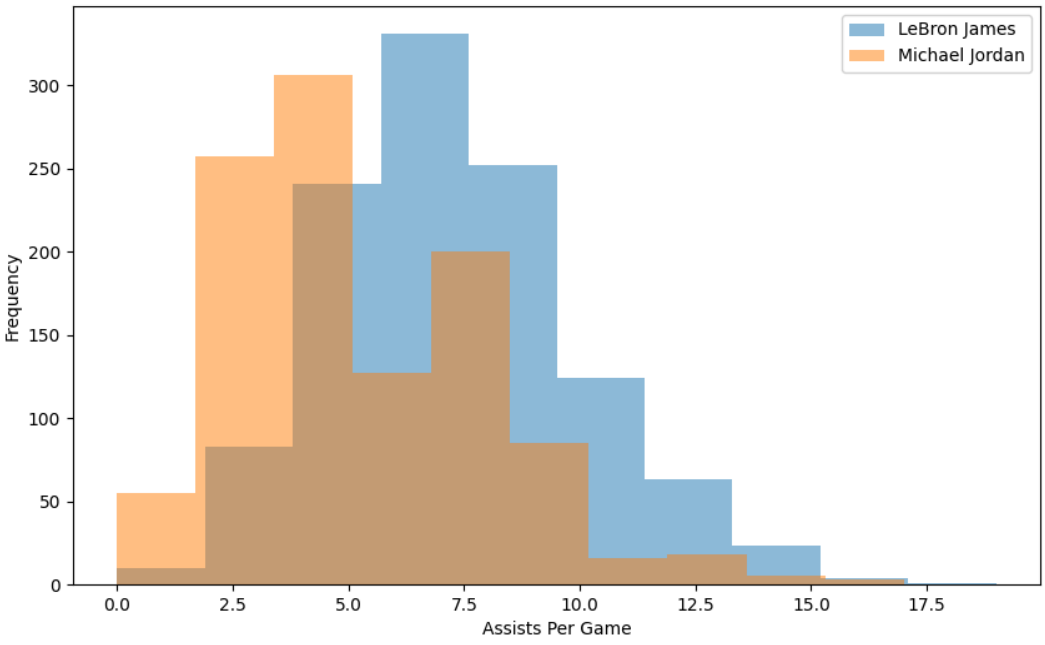
(Shows how MJ has a higher frequency of points compared to Lebron)



(Shows how MJ is playing more minutes than lebron is)



(Shows that Lebron has a higher frequency of blocks than MJ, but MJ has a higher frequency with a low number of blocks)



(Shows How Lebron has a higher frequency of assists than MJ)

6. Conclusion

The most significant insight gained from the analysis is that based on the statistics and the numbers, Micheal Jordan is a better basketball player than Lebron James. The numbers show that in the first 15 years of Lebron's Career, and the total 15 years of Jordan's career MJ is better. Micheal Jordan is better in scoring, perimeter defense (steals), running an efficient offense, while playing more minutes per game. Lebron James on the other hand is better at playmaking and passing, and barely edges Jordan in interior defense (blocks). Potential limitations in the dataset are injuries and time off. Jordan played 15 seasons and took a two year break in between due to his father which could have affected his stats; this however only exemplifies his greatness as he overcame mental challenges while competing at a high level. We also see unmarked statistics like Most Valuable Player (MVP) Awards, Defensive Player of the Year (DPOY) Awards, scoring titles, NBA championships, and NBA finals MVPs. However once again we see Jordan defeating Lebron, Jordan has 5 MVPs, Lebron has 4 MVPs, Jordan has 1 DPOY, Lebron has 0 DPOY. Jordan has 10 Scoring Titles, Lebron has 1 Scoring Title. Jordan has 6 Championships, Lebron has 4. Jordan has 6 Finals MVPs, Lebron has 4.

To summarize:

	MVP's	DPOY's	Scoring TItles	NBA Championships	Finals MVPs
Micheal Jordan	5	1	10	6	6
Lebron James	4	0	1	4	4

As clearly visible, even in the limitations Micheal Jordan is greater than Lebron James. The limitations in the data only limit Jordan's greatness. Further questions that could be examined are how these statistics have changed over the years by looking at these same types of stats between an average of all players over the years; seeing how points have inflated or deflated, etc.

7. References ***(if applicable)***

- Nope.