Captain Hindsight NBA edition

Analysis of draft picks, their rookie season, and their contribution

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Background

All of the major sports conferences in the US give bad teams a chance to rebuild with draft picks, usually resulting in the last place team getting the first pick. The NBA has a draft lottery, that does not guarantee, but gives the worst teams a higher chance of getting the first pick

Questions

- Is having the highest possible pick always the best option?
  - Jay Williams No. 2 2002, Kwame Brown No. 1 2001, Greg Oden No.1 2007

- How much did the rookie actually contribute to the team?
  - Darko Milicic No .2 2003

- How much better did the team do?
  - Tyreke Evans No. 4 2009

- Which picks usually result in the best contributors and players
  - Kobe Bryant No. 13 1996, Steve Nash No. 15 1996, Bill Russel No. 3 1956, Kevin Durant No. 2 2007

Prior Work

- Nothing

Data Set

Data Set of every player's season since 1950. About 25000 players with 50 attributes. We will either try to figure out how to keep all players on level playing field as not all stats were kept till 1982. Will also have 30 teams with 46 attributes for 35 seasons.

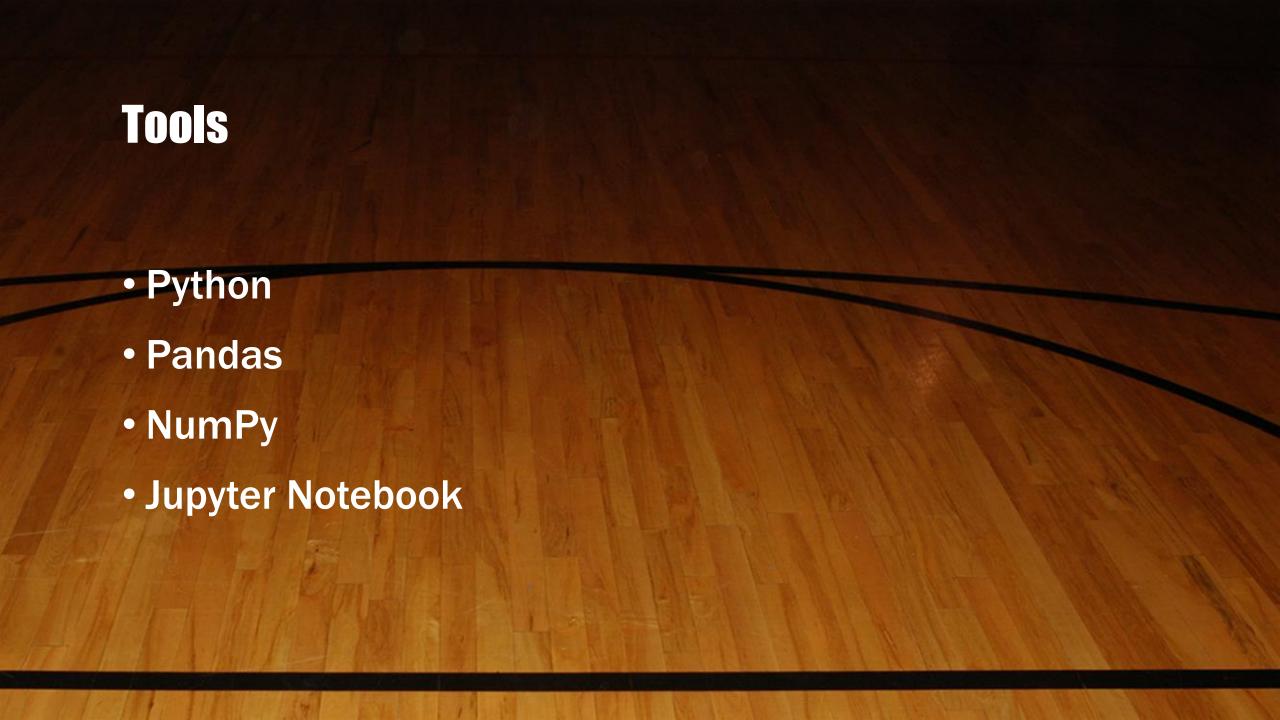https://www.kaggle.com/drgilermo/nba-players-stats

Proposed Work

Data

- Remove null values

- Create a formula that makes all players equal no matter the year.

- Might have to manually create the data set for team stats

- Use both player data and team data to create another data set that will show their impact with their draft pick and year.

- Check with other sources to make sure all data is correct

Analysis

- Determine what picks usually result in the best players.

- Reorder the draft picks based off the data (2, 5, 1, 10, etc...)

- Find other patterns

Tools

- Python

- Pandas

- NumPy

- Jupyter Notebook

Evaluation

- We will evaluate our data set and answer all of our questions and any other trends. We can find which attributes have a stronger effect on how well a rookie plays. By comparing rookie stats and team stats we can prove which picks are the best to have. Will also be using general news from others sources (Bleacher Report, ESPN, etc..) and seeing if our data follows how they feel about draft classes.