CAPTAIN HINDSIGHT NBA EDITION

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QUESTIONS SOUGHT TO ANSWER

- Which pick historically results in the best possible player?
- Based on the data of every draft, what is the true order of the draft?
- What are the best and the worst picks to have?
- If I am a NBA GM, "Am I happy with the 16th pick?" or "Do I need to trade my pick to get a better one?"

TOOLS USED

- Python
- Pandas
- Numpy
- Sklearn
- Matplotlib

DATA PREPARATION

- So before we could analyze the data we had to clean it up. First the NBA draft has evolved multiple times. From 1960 to 1973 the NBA draft consisted of 21 rounds. From 1974-1984 there was 10 rounds. By 1985, it was reduced to 7, and finally by 1989 the draft was limited to just 2 rounds.
- So we decided to just take the first 60 picks from every draft. Due to the league only having 2 rounds starting in 1989, there was only 54 picks till 1995 and 58 picks till 2005. This was due to expansion teams joining such as Toronto, Vancouver (now Memphis) and Charlotte
- Also when we looked at all the attributes, we excluded a decent amount from our dataset. We didn't care about their names, draft year, team, college ,executive and tenure.

THE PROCESS

- First we had to cluster all of the data for every individual. For example Kobe played 20 seasons, so in 20 instances we had to average out all of his data.
- Once we had a dataset that had only one instance of every single player, we then clustered the data based of the pick number, 1- 60
- From there we averaged all of the data for each pick.
- True rating of pick = All NBA selections + all star selections + years played + field goal percentage + minutes per game + points per game + rebounds per game + assist per game + win share + VORP.

TRUE ORDER

1	13	17	45	41	57
3	11	20	31	34	50
5	14	19	36	39	55
2	18	22	35	32	53
4	12	29	37	48	44
9	24	25	43	38	58
7	15	26	33	42	56
8	21	27	40	49	54
10	23	28	47	60	51
6	16	30	46	52	59

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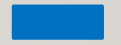
5 

HOW THIS KNOWLEDGE CAN BE APPLIED.

- Using this data you can found out which type of player you can draft at your pick at a better price.
- For example the 24th pick on average can give you the same amount of assist per game as the 7th pick.
- The 45th pick can give you the same amount of rebounds as 28th pick
- 48th pick can give you the same amount of minutes as the 32nd

HOW THIS KNOWLEDGE CAN BE APPLIED.

- What this truly tells us is the true probability of the pick being a bang or a bust.
- Our data will not be consistent for every draft, but it is just showing the probability of how good this pick can truly be and what they can strive at.
- Of course there has been number #1 picks who have not been good, but majority of them are good players. Pick 3 & 5 are better than pick 2 historically because more 3 & 5 picks have played well in their careers than pick 2
- We are not saying that if you have the 31st pick you should trade it for the 45th pick because of the true order. Being the 31st pick you should have more confidence, due to the higher pick by probability and chance on paper. If you are the 45th pick though, you should have extreme confidence because even though you are a later pick, the data tells your pick will pan out.