



NBA Draft Pick Analysis Report

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Objective

To create a report on Players performance year-wise and compare.
To find Key metrics and factors. Also, to show meaningful relationship between attributes.

Data Description

The dataset consist of following columns :

Sr. No.	Column Name	Sr. No.	Column Name
1	Player : Player Name	10	Vertical (No Step) : No step vertical of player
2	Year : Which Year Player Picked	11	Vertical (No Step Reach) : No step vertical reach of player
3	Draft_Pick : How many times player pick	12	Weight : Player's weight
4	Height (No Shoes) : Player height without shoes	13	Body Fat : Player body fat
5	Height (with Shoes) : Player height with shoes	14	Hand (Length) : Measure Player Hand Length
6	Wingspan : Players arm length from fingertip to fingertip	15	Hand (Width) : Measure Player Hand Width
7	Standing Reach : Player standing reach	16	Bench :
8	Vertical (Max) : Measure of player's vertical jump	17	Agility : Agility of Player
9	Vertical (Max reach) : Player player's vertical max jump	18	Sprint : Sprint of Player

Tools Used



NumPy



pandas



Excel



Power BI

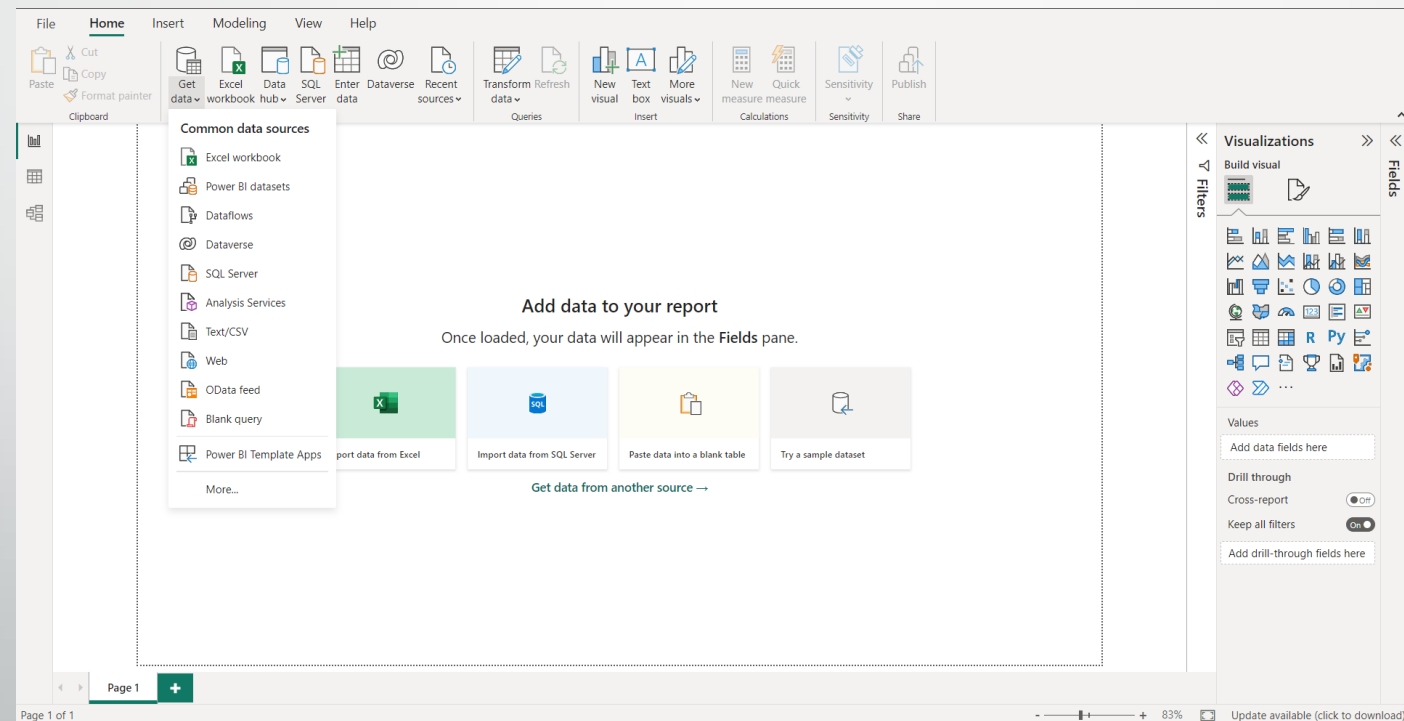
- Programming Language used : Python
- Python Libraries used : Numpy, Pandas
- Business Intelligence Tools : Excel, Power BI

Data Imports and Data Cleaning

- Import the given Excel file in Jupyter Notebook for cleaning
- Data Cleaning is crucial as the dataset has impurities such as missing values or incorrect data types.
- I used Pandas library in Python to impute or remove missing values and make dataset ready for creating visual reports.

Data Importing in Power BI

- In Power BI, we have options to connect to our dataset via various options such as SQL Server, MySQL, Excel or CSV files.
- We have our clean data in CSV file. We will import in Power BI with import data option and start working with it.



Data Transformation in Power BI

- Once the data is imported in Power BI, we do transform data i.e. using Power Query Editor to perform certain operation on to the data.
- Ensuring correct data types, creating custom or conditional columns are some fundamental task performed in Power Query.

The screenshot displays the Power Query Editor window for a query named 'NBA Draft Combine'. The ribbon includes tabs for File, Home, Transform, Add Column, View, Tools, and Help. The Transform tab is active, showing various data manipulation options like 'Data Type: Text', 'Merge Queries', 'Append Queries', 'Combine Files', 'Text Analytics', 'Vision', and 'Azure Machine Learning'.

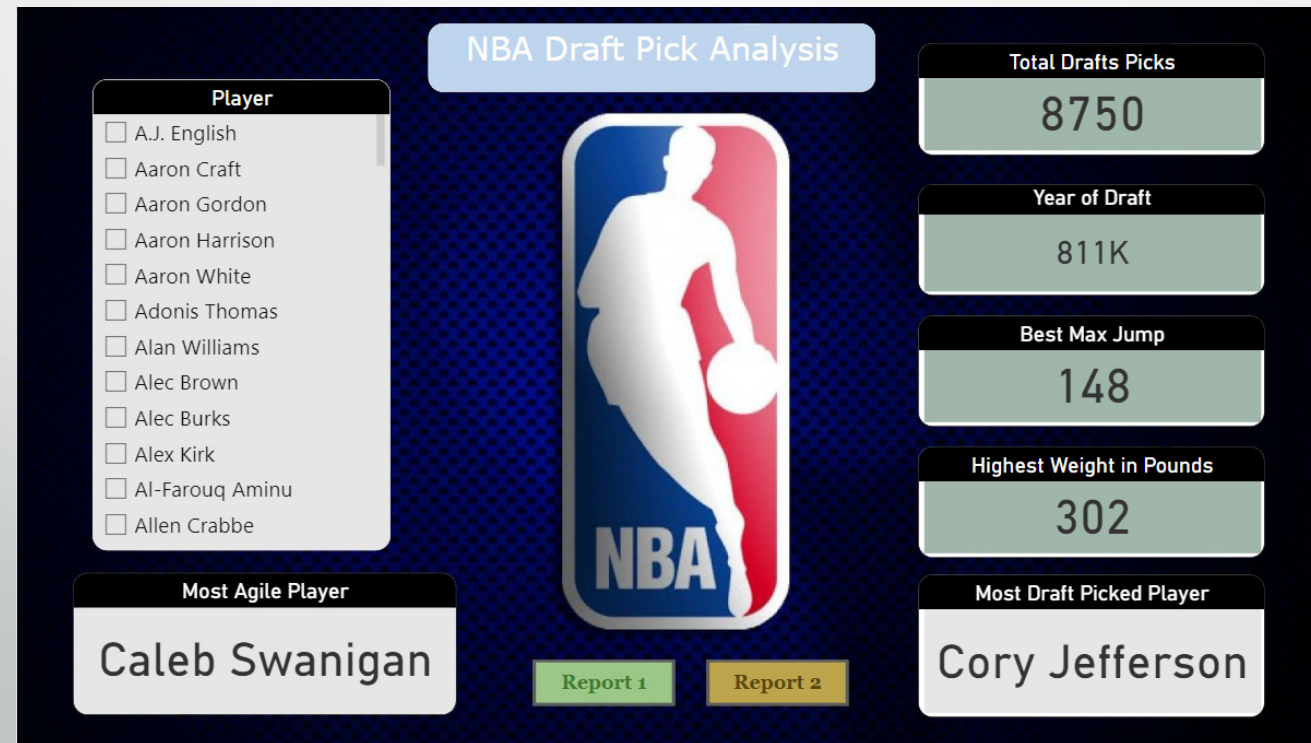
The main area shows a table with 18 columns and 403 rows. The columns are: Player, Year, Draft pick, Height With No Shoes, Height With Shoes, Wingspan, and Standing reach. The data lists various NBA players and their draft combine statistics.

The right-hand pane shows the 'Query Settings' for 'NBA Draft Combine'. It includes a 'PROPERTIES' section with the query name and a list of 'APPLIED STEPS'. The steps listed are: Source, Promoted Headers, Changed Type, Removed Index Column, Renamed All Columns, Replaced null value with 0 in ..., Filtered Rows, Replaced null value with 0 in ..., Rounded Off Agility Column, Rounded Off Sprint Column, Rounded Off, and Rounded Off1. The 'Changed Type1' step is currently selected.

At the bottom of the window, it indicates '18 COLUMNS, 403 ROWS' and 'Column profiling based on top 1000 rows'. The bottom right corner shows 'PREVIEW DOWNLOADED AT 13:18'.

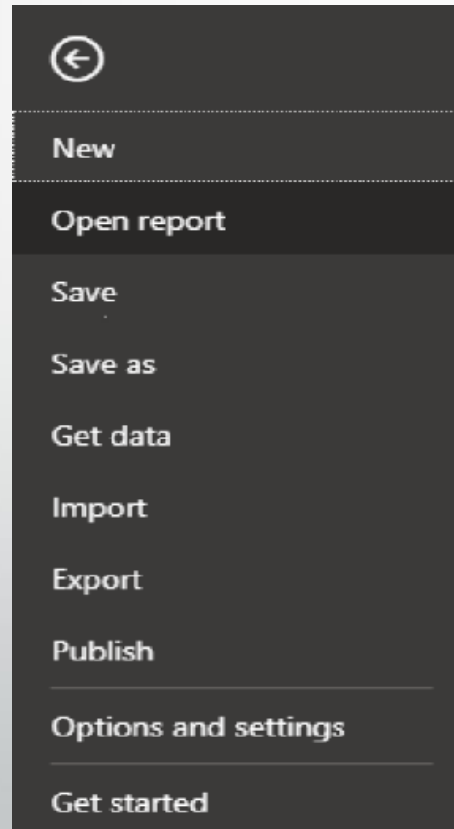
Building Visuals in Power BI

- ❖ A report is created in Power BI with various charts depicting Draft Picks by Player and Agility & Sprint by Player which can be seen by using slicer of particular year and Player.
- ❖ Also, I created Player's slicer to see data cards which shows key factors with respect to players.
- ❖ Top 5 Players with respect to Draft Picks, wingspan and vertical max reach using year slicer.



Deployment in Power BI

- ❖ In Power BI, we can directly publish the report online to your workstation. If you do not have the work email-id then you can save the file in '.pbix' version. This helps another viewer see your work and understand the story or insights you are communicating.





Thank You !