NBA Draft Combine Analysis

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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.

Table Description

Sr. No.	Column Name	Sr. No.	Column Name
1.	**Player**	10.	**Vertical (No step)**
2.	**Year**	11.	**Vertical (No Step Reach)**
3.	**Draft Pick**	12.	**Weight**
4.	**Height (No Shoes)**	13.	**Body Fat**
5.	**Height (with Shoes)**	14.	**Hand (Length)**
6.	**Wingspan**	15.	**Hand (Width)**
7.	**Standing Reach**	16.	**Bench**
8.	**Vertical (Max)**	17.	**Agility**
9.	**Vertical (Max reach)**	18.	**Sprint**

Tools Used

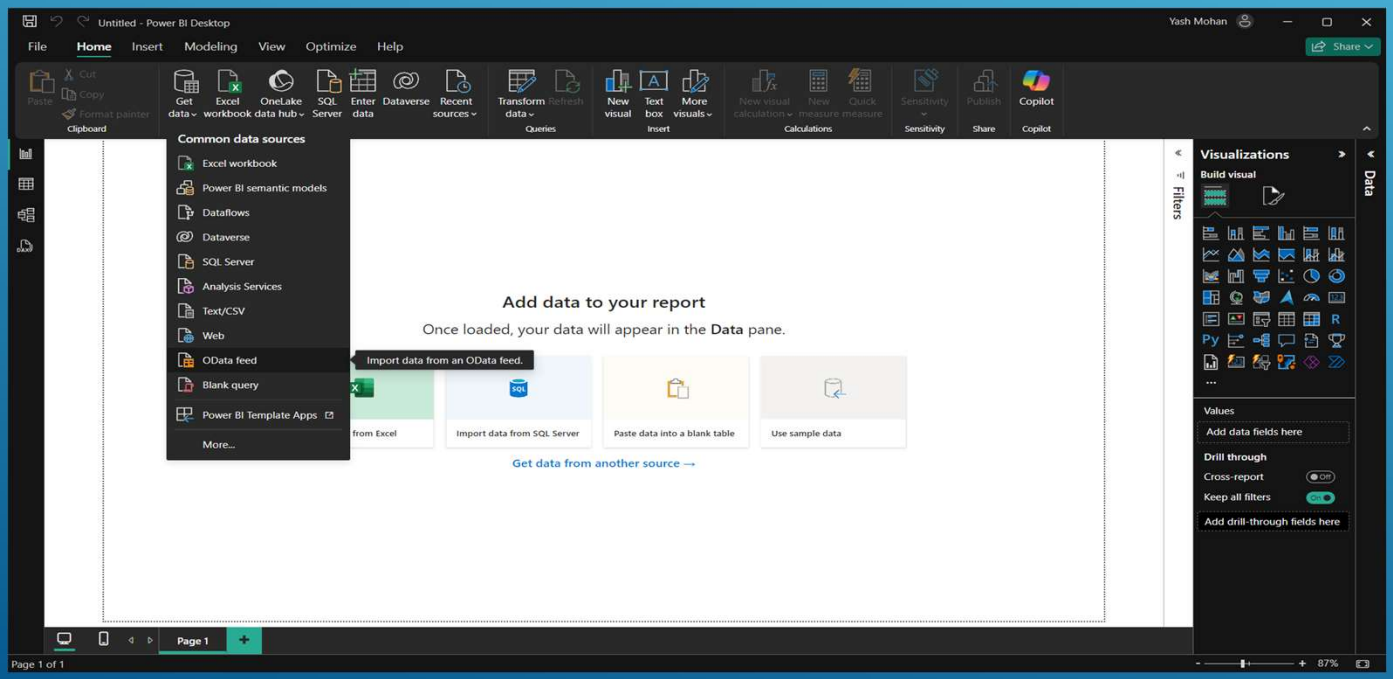
- Programming Language Used: Python
- Python Libraries Used: Numpy, pandas
- Business Intelligence Tools: Excel, Power BI

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.
- We used Pandas library in Python to get rid of missing values and make dataset ready for creating visual reports.

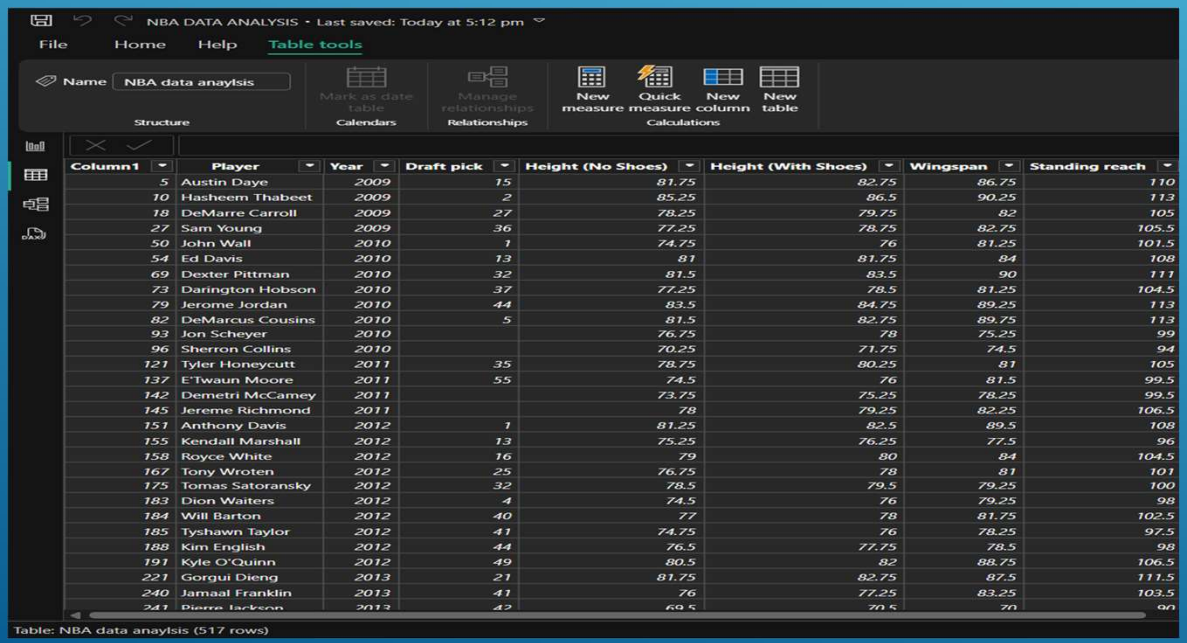
Data Importing in Power BI

- In Power BI we have options to connect to our dataset through various options such as SQL servers, MySQL, Excel or CSV files.
- We have our clean data in the CSV file. Now 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.

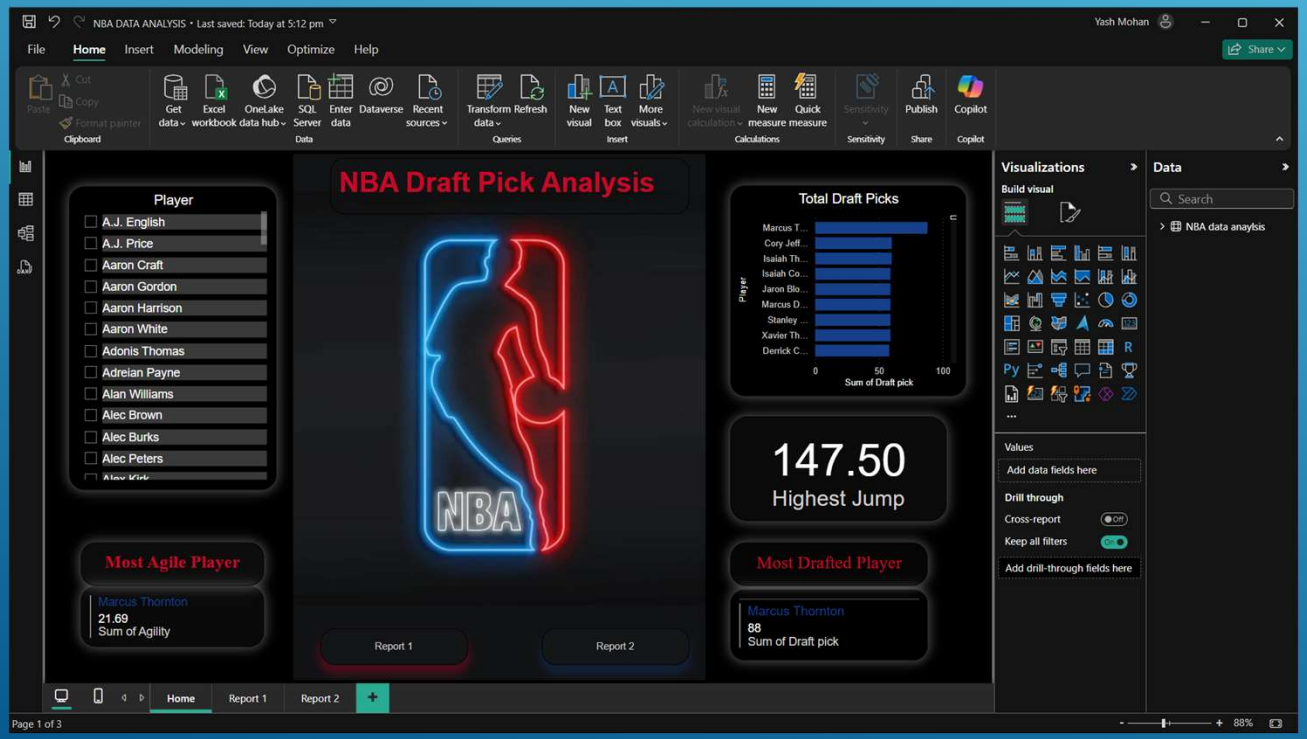


Column1	Player	Year	Draft pick	Height (No Shoes)	Height (With Shoes)	Wingspan	Standing reach
5	Austin Daye	2009	15	81.75	82.75	86.75	110
10	Hasheem Thabeet	2009	2	85.25	86.5	90.25	113
18	DeMarre Carroll	2009	27	78.25	79.75	82	105
27	Sam Young	2009	36	77.25	78.75	82.75	105.5
50	John Wall	2010	1	74.75	76	81.25	101.5
54	Ed Davis	2010	13	81	81.75	84	108
69	Dexter Pittman	2010	32	81.5	83.5	90	111
73	Darington Hobson	2010	37	77.25	78.5	81.25	104.5
79	Jerome Jordan	2010	44	83.5	84.75	89.25	113
82	DeMarcus Cousins	2010	5	81.5	82.75	89.75	113
93	Jon Scheyer	2010		76.75	78	75.25	99
96	Sherron Collins	2010		70.25	71.75	74.5	94
121	Tyler Honeycutt	2011	35	78.75	80.25	81	105
137	E'Twaun Moore	2011	55	74.5	76	81.5	99.5
142	Demetri McCamey	2011		73.75	75.25	78.25	99.5
145	Jereme Richmond	2011		78	79.25	82.25	106.5
151	Anthony Davis	2012	1	81.25	82.5	89.5	108
155	Kendall Marshall	2012	13	75.25	76.25	77.5	96
158	Royce White	2012	16	79	80	84	104.5
167	Tony Wroten	2012	25	76.75	78	81	101
175	Tomas Satoransky	2012	32	78.5	79.5	79.25	100
183	Dion Waiters	2012	4	74.5	76	79.25	98
184	Will Barton	2012	40	77	78	81.75	102.5
185	Tyshawn Taylor	2012	41	74.75	76	78.25	97.5
188	Kim English	2012	44	76.5	77.75	78.5	98
191	Kyle O'Quinn	2012	49	80.5	82	88.75	106.5
221	Gorgui Dieng	2013	21	81.75	82.75	87.5	111.5
240	Jamaal Franklin	2013	41	76	77.25	83.25	103.5
241	Pierre Jackson	2013	42	69.5	70.5	70	90

Table: NBA data anaylsis (517 rows)

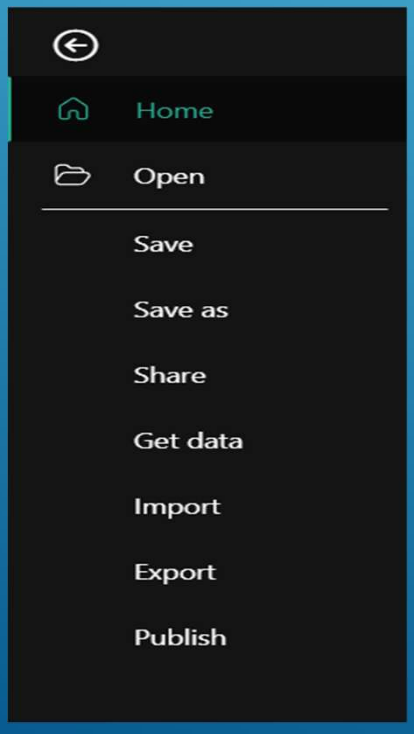
Building Visuals in Power BI

- A report is created in Power BI with various charts depicting Draft Picks by Player and Agility and 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 our workstation. If we do not have the work email then we can save the file in '.pbix' version. This helps another viewer see our work and understand the story or insights we are communicating.



Thank You!