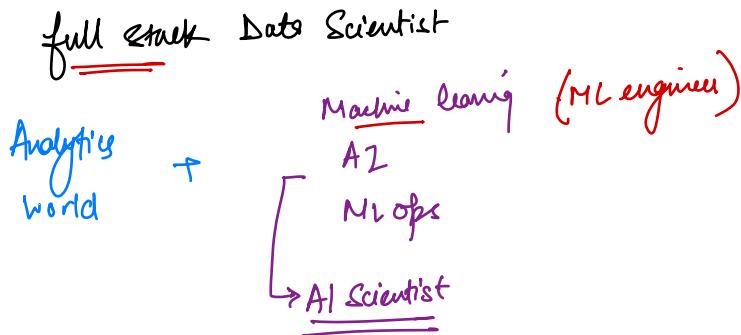


Ground Rules

- Onestu tab for Onestu
- All the handwritten & code notebook
- Pre-read | Post-read are mandatory
- ★ whatever we are doing
 - industry perspective
 - Machine Learning journey

Python



$C_1 \rightarrow 5 \text{ days} / \text{Month}$ | give me some characteristics
 $C_2 \rightarrow 5 \text{ days} / \text{year}$ | $C_1 \rightarrow \text{Bangalore, Kingfisher,}$
 \downarrow Kingfisher tower,
 $\text{Infyosys, ITR (3 years)}$ $\text{D-BT} \rightarrow 85\text{no more}$

\Rightarrow $1 \text{ yr exp} \rightarrow \underline{\underline{210K}}$ $6^{\text{th}} \text{ year} \rightarrow \underline{\underline{60K}}$
 $2 \text{ yr exp} \rightarrow \underline{\underline{220K}}$
 $3 \text{ yr exp} \rightarrow \underline{\underline{230K}}$
 1 Mn professionals

$\begin{cases} 10\% \\ 20\% \end{cases}$ yearly hike

1 Mn Rows

data \rightarrow perfect

EDA \rightarrow Exploratory Data Analysis

$\begin{cases} + \text{Irrelevant noise from data} \\ + \text{Outliers} \end{cases} \rightarrow 20 \text{ yrs} \mid \begin{cases} \text{Batch} \\ \text{MDA} \end{cases} \} 8 \text{ more}$
 $20 \text{ yrs} \hat{=} 3 \text{ days} / \text{Month}$

$\begin{cases} + \text{Corrupt data} \rightarrow 10,000 \rightarrow \text{int} \\ + \text{Xomata} \rightarrow \begin{cases} 4.1/5 \\ 10K \end{cases} \rightarrow \begin{cases} \text{string} \\ \text{mean} \end{cases} \end{cases}$

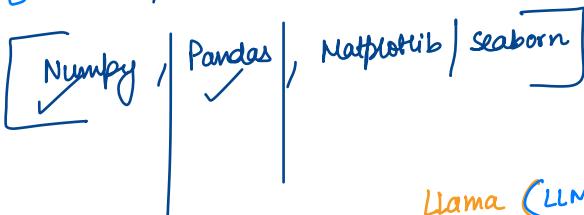
$\begin{cases} (4.1) \\ (4.1) \end{cases} \rightarrow \begin{cases} \text{mean} \\ \text{mean} \end{cases}$

Python

Jungle → Hunt → Cook
↓
serve

Xonato / Swiggy → L -

→ library → 100% Data Scientists



Python

Numpy, pandas, tensorflow, Pythorch (facebook)
↑ libraries on top of it
Python (high level language)

little
bit human
friendly

(low level
language)

C++, C

Assembly language

Machine

$a = 1011010$
 $b = 1100101$

1010110
Binary

Semi-conductor → Chips

↓
Sand (—)

electricity

{}
Sand

Notebook →

{ colab
Google }

Pycharm, VScode
Anaconda

GPU
free

↑
no dependency on hardware

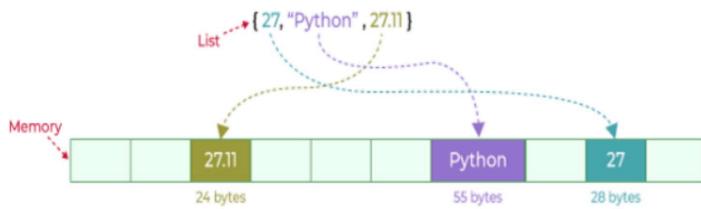
Python
Numpy

Numerical

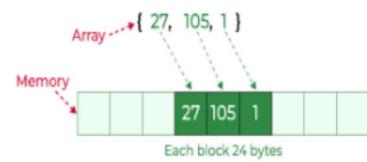
Python << Numpy (for numerical operations)

Parallel operations are possible

①



Python List



NumPy Array

②

Parallel in numpy

↳ Divide & Conquer → sub task in parallel

3D array

1D array

7	2	9	10
---	---	---	----

axis 0 →
shape: (4,)

2D array

5.2	3.0	4.5
9.1	0.1	0.3

axis 1 →

shape: (2, 3)
↑
row →
↓
column →

1	2	3	4
1	4	7	7
2	9	7	7
1	3	7	2
9	6	0	2
6	9	9	8

axis 0 ↓
axis 1 →
axis 2 →
shape: (4, 3, 2)

2D array

↑
row →
[] → column →

In a (m, n) array, what shape is returned by `arr[:, 0]` ?

2D-Array