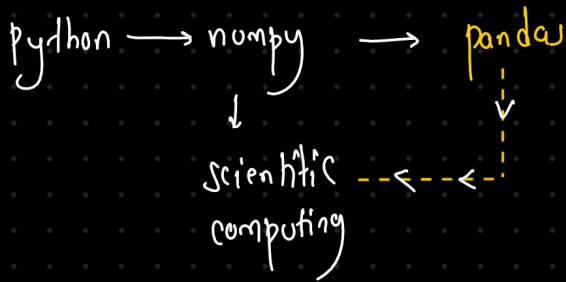


07-06-2025

Agenda: —

pandas



google sheets / Excel / Numbers

0 1 2 3 4

→ structured data
→ relational data

	Name	Ph.no	addv.	salary	email
0	Rahul	⊖	⊖	⊖	⊖
1		~~~~	~~~~		
2					

Real world

→ structured format → use (analysis, calculation)

↑ ↑
-----→ pandas

python

json → structured → func → scratch

Panda :- Open source

↓
numpy

* data manipulation

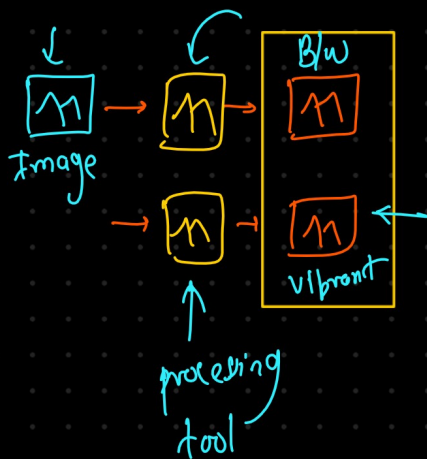
* Analysis

Data (raw) → process the data → clean data → Machine Learning
* specific format

python

Numpy

panda



positional indexing $\rightarrow 0$

Index \rightarrow 'a': 10, 'b': 20, 0: 30

'a'

0

positional indexing

native index

sl.iloc[]

sl.loc[]

index

index

sl.loc['a'] \rightarrow 10

sl.iloc[0] \rightarrow 10

sl[0] \rightarrow deprecated (not used in latest version, also developers are not providing support)

\rightarrow check if 0 present in native index \rightarrow if not move to positional index, but if '0' is present, get the value.

Android 4

iOS 2

Dataframe \leftarrow pandas object

Series
column

S-1	S-2	S-3	S-4	S-5
-----	-----	-----	-----	-----

Data:

.csv → comma separated values

Name , Age

Mona , 30

Kevin , 26

dict

→ { 'name': ['Mona', 'Kevin'],
 'age': [30, 26],
 }

→ JavaScript Object notation

json

→ [{ 'name': 'Mona',
 'age': 30
 },
 { 'name': 'Kevin',
 'age': 26
 }
]

→ { "data": [{ val-1 }, { val-2 }]
 }

.xml

→ pojo file
↓
Javq

```
<people>
  <person>
    <Name> Mona </Name>
    <Age> 30 </Age>
  </person>
  <person>
    <Name> Kevi </Name>
    <Age> 26 </Age>
  </person>
</people>
```

if ['Age'] > 70

→ (1) True	Row 1	●
(0) False	Row 2	
(1) True	Row 3	●
(0) False	Row 4	
(0) False	Row 5	