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AI Modules

Presented by AI/ML Team

Week-2

- Numpy basics
- Pandas basics
- Matplotlib basics
- TensorFlow basics

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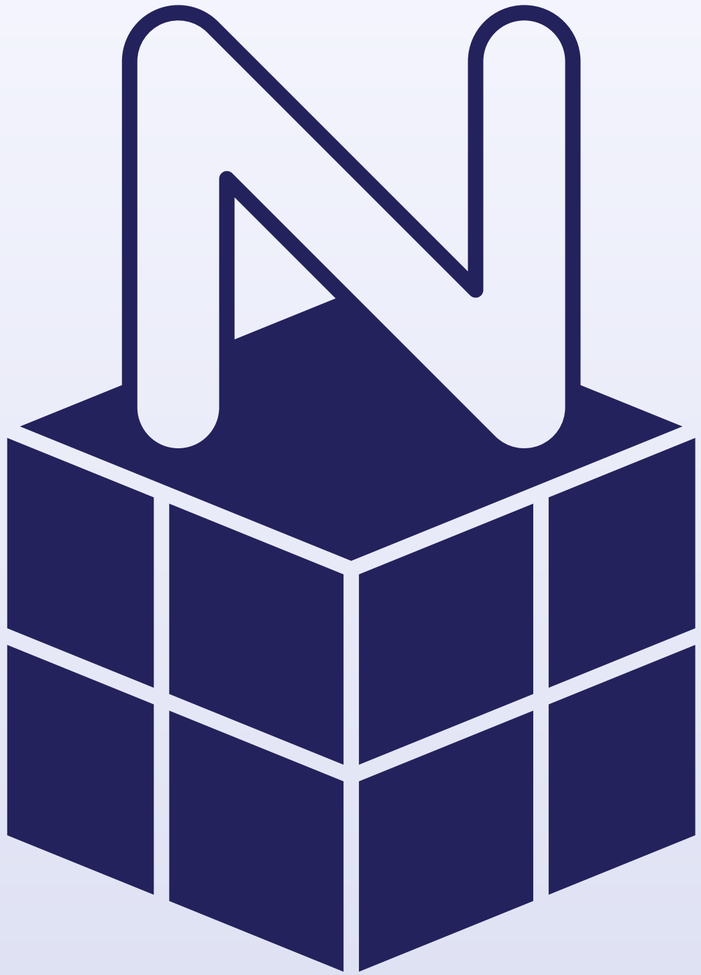
Why NUMPY?



- Creating Arrays
- Array Attributes
- Array Reshaping
- Array Indexing

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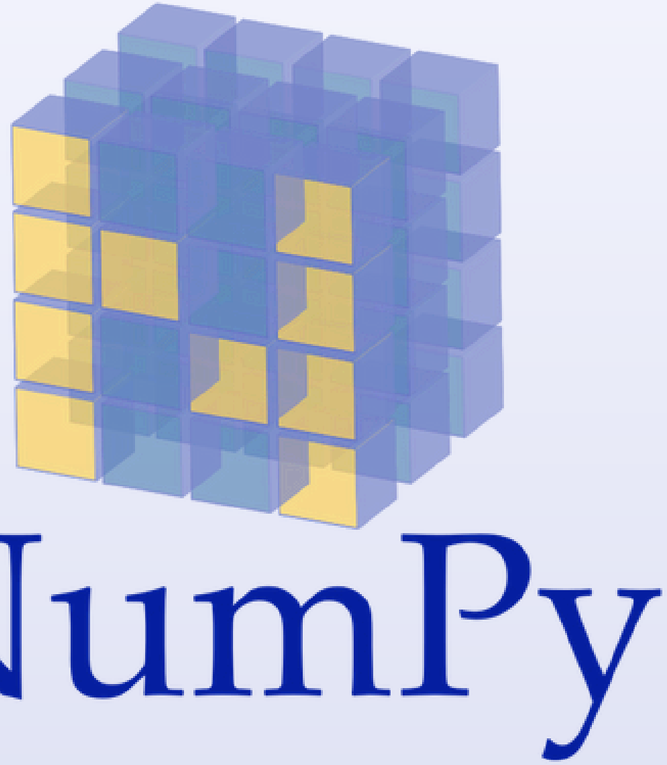
- Array Slicing
- Array Operations
- Common Functions
- Linear Algebra

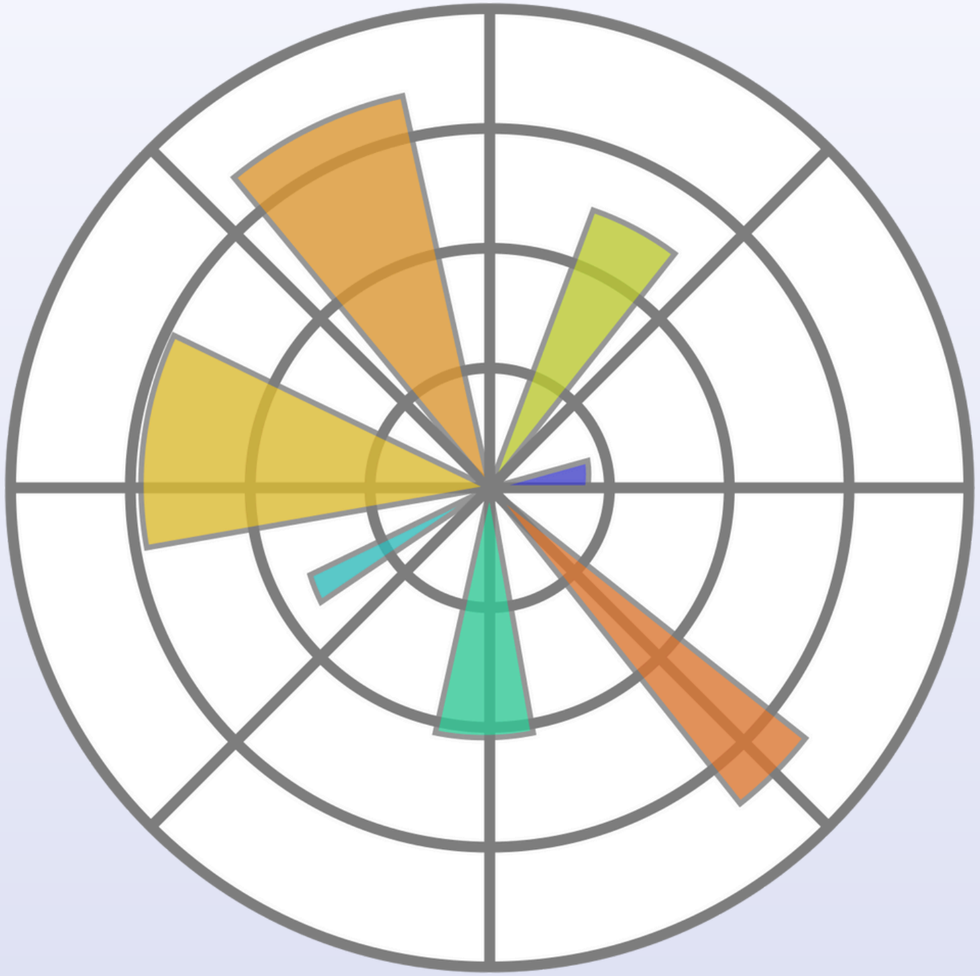


Why PANDAS?

pandas

- Creating DataFrames
- Data Selection
- Data Manipulation
- Inplace
- Handling Missing Data
- Convert to Numpy

Why MATPLOTLIB?



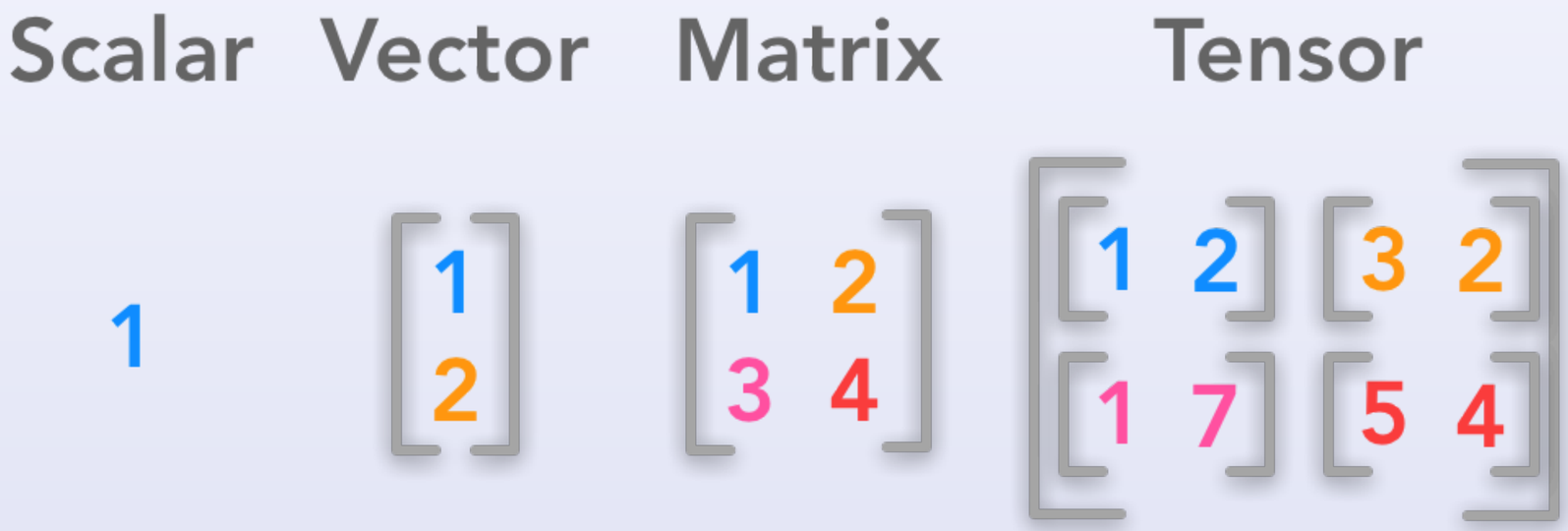
- Plotting
- Subplots
- DataFrame.plot()

Why TensorFlow?

TensorFlow

- History of TF
- PyTorch vs TensorFlow
- Tensors

Tensors



Tensors

(11)

SCALAR

5	3	7

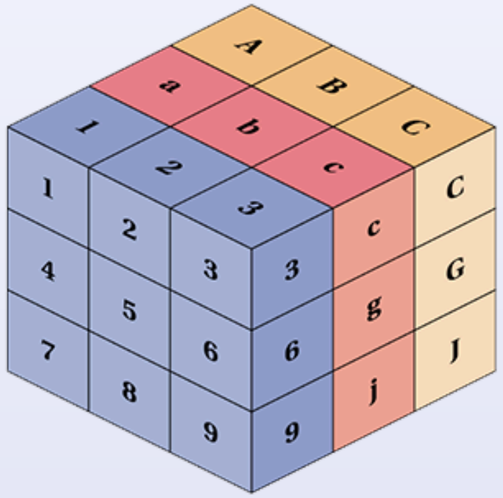
Row Vector
(shape 1x3)

5
1.5
2

Column Vector
(shape 3x1)

$$\begin{bmatrix} 4 & 19 & 8 \\ 16 & 3 & 5 \end{bmatrix}$$

MATRIX



TENSOR

- Creating a Tensor
- Tensor Attributes
- Reshaping and Casting
- Manipulating Tensors
- Tensor Operations

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