

Intro to Numpy, Pandas, and Matplotlib

Presented by the Artificial Intelligence Society





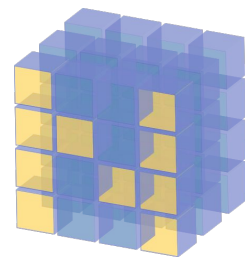
How this workshop is going to work...

After some slides, we will open up Google Colab and have separate sections for explaining how to code using the following libraries:

- Section 1: Numpy (Matrix Operations)
- Section 2: Pandas (Data Analysis)
- Section 3: Matplotlib (Data Visualization)



What are these libraries?

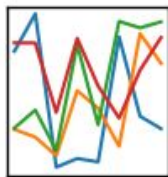


NumPy

- Numpy, Pandas, and Matplotlib are the most fundamental Python data science libraries.
- These are the first libraries that you should learn to use before getting into machine learning with Python.

pandas

$$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$$



matplotlib



What is Google Colab?

- Google Colab is a free cloud-based Python environment accessible through Google Drive!
- Comes with many pre-installed libraries.
- Even offers free GPU runtime!

The Google Colab logo, featuring the word "colab" in a bold, lowercase, sans-serif font. The letters "c" and "o" are yellow, while "l", "a", and "b" are orange. The "c" and "o" are stylized with a slight gap in the middle of each letter.



What you need to follow along

- To find all the materials for this workshop please see the GitHub repo here:
<https://github.com/aisutd/Workshop1Spring19>
- Just download the .ipynb file and upload it to Google Drive and follow along!
- All of the code has already been written!