

# Introduction to NumPy





- It is now time to learn about one of the most fundamental libraries of using Python for Quantitative Analysis -NumPy!
- NumPy is already included in the environment file provided, but just in case



- NumPy is a numerical library for Python that allows for extremely fast data generation and handling.
- It utilizes arrays which can efficiently store data (much better than a built-in normal python list).



- We won't dive into every single feature of NumPy in this course, it is a huge library.
- Instead we will teach you the functions and methods you will be using most often when working with quantitative data.





 Once we understand the basics of NumPy we will be ready to move on to working with pandas, which is a data analysis library built directly off of NumPy.



 We'll be working directly with pandas more often than with NumPy, but understanding NumPy is crucial to truly mastering pandas.



- This section will cover the following:
  - Numpy Arrays
  - Numpy Indexing and Selection
  - Numpy Operations
  - Numpy Exercise (and Solution)



#### Let's get started!





#### **NumPy Arrays**





## NumPy Indexing and Selection





### **NumPy Operations**





# NumPy Exercises Solutions

