Data Science and Python

Take your data analysis beyond Excel with popular Python libraries

Excel is a powerful all-purpose tool, but it has its limits. For larger datasets, or more complex calculations, you need to go past it. The Python ecosystem has many libraries that can help you do data analysis, including experimenting, managing, and visualizing your data.

Length: 3 day workshop

Language Prerequisites: a solid grounding in Python, including an understanding of lists, dictionaries, iterators, sets, and functions.

Technical Prerequisites: Workshop participants are required to have Python installed and be able to use virtual environments to manage third party libraries. Participants can use their preferred development environment.

Topics

- Data analysis tools within the Python standard library
- Writing functional-style code in Python
- The power and speed of NumPy for numeric calculations
- Statistical analysis in Python
- Using Matplotlib to graph and visualize your data
- Introduction to programming with DataFrames
- Data analysis with the pandas DataFrame library
- Data analysis with the Polars DataFrame library
- Speeding up Polars through concurrency and lazy evaluation
- Dealing with large amounts of data
- Cleaning data sets