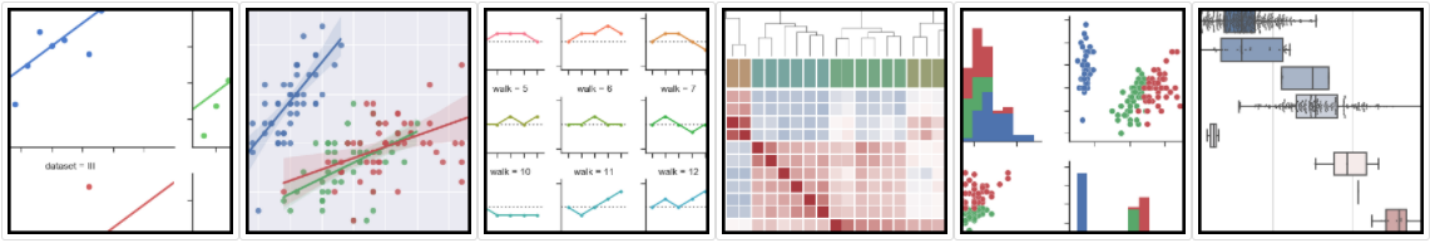
Lecture 15: Visualizing data

Data processing doesn't end with analysis of data. You also need to communicate the results of your data – either to yourself or to other people through papers and presentations. In Python, you can make professional looking plots using a variety of modules. There is no single module that rules but there are a few important ones. In this class we will mainly focus on using matplotlib and Seaborn. I like Seaborn due to its compatibility with pandas, and its default use of 'pretty' color schemes.



Matplotlib

Matplotlib, a library for making 2D plots of arrays in Python is probably the most popular graphics libary. It emulates Matlab's graphics commands, though it is completely written in Python, making heavy use of the NumPy library of numerical arrays and functions. Info on its use can be found here: https://matplotlib.org/

Seaborn

Seaborn is built on top of matplotlib, essentially acting as a sugar. It calls the matlab function in a way that is more intuitive and combines calls to make it easier. Its documentation is here: https://seaborn.pydata.org/

The easiest way to do this is to go over some basic examples. I've uploaded a number of example scripts for you to go over.