

Types of Data

- Sequential data
 - ◆ Type of data with sequencing, ordering, like gene, protein sequences.
- Data matrix
 - ◆ Data shown in rows and columns, usually as records.
- Spatial data
 - ◆ Space-type data. Locations like maps and floor plans.
- Temporal data
 - ◆ Time-type data. Usually involving graphs to show change over time, data on certain timepoints.
- Graph / Networks
 - ◆ Data that shows links and connections between subjects/targets.
- Text
 - ◆ Data shown using texts, paragraphs, written sentences like documents, research papers.
- Multimodal data
 - ◆ Multiple types of data types combined e.g. research papers which includes texts and likely to have matrix, spatial, temporal, graphs, or sequential data depending on the topic.

Introduction to Python

Pre coding:

- Computer language
 - Python is the medium of communication between user and computer
 - Code is the language to communicate with computers
 - Programming is using codes to instruct the computer to do a task
- Numpy: plugin / mod to make Python have more tools and understand
 - + Scipy, matplotlib, pandas

- They act as library of code for python to receive more instructions and be able to execute additional programmed actions

Coding:

- Arrays : stores values as a variable
 - Allows easy access to using the stored data
- Print: outputs coded content in the output box
 - “Text” to output text
 - Printing a variable (e.g. `a = [1,2]`) outputs the values
- Numpy
 - Expands coding to allow outputs by using “numpy.xxx”
 - Mean (average)
 - Std (standard deviation)
 - Median
 - Max / Min