

NumPy  
SciPy  
pandas  
scikit-learn  
NLTK  
PyMC

## The PyData Ecosystem

A Python-based ecosystem of open source software for acquiring, preparing, querying, analyzing, and visualizing data sets.

Get Started



## Interests

### Data Science



Organize and analyze large amounts of data, translating results into solutions

Go

### Visualization



Represent data and results using charts, graphs, maps, and other techniques

Go

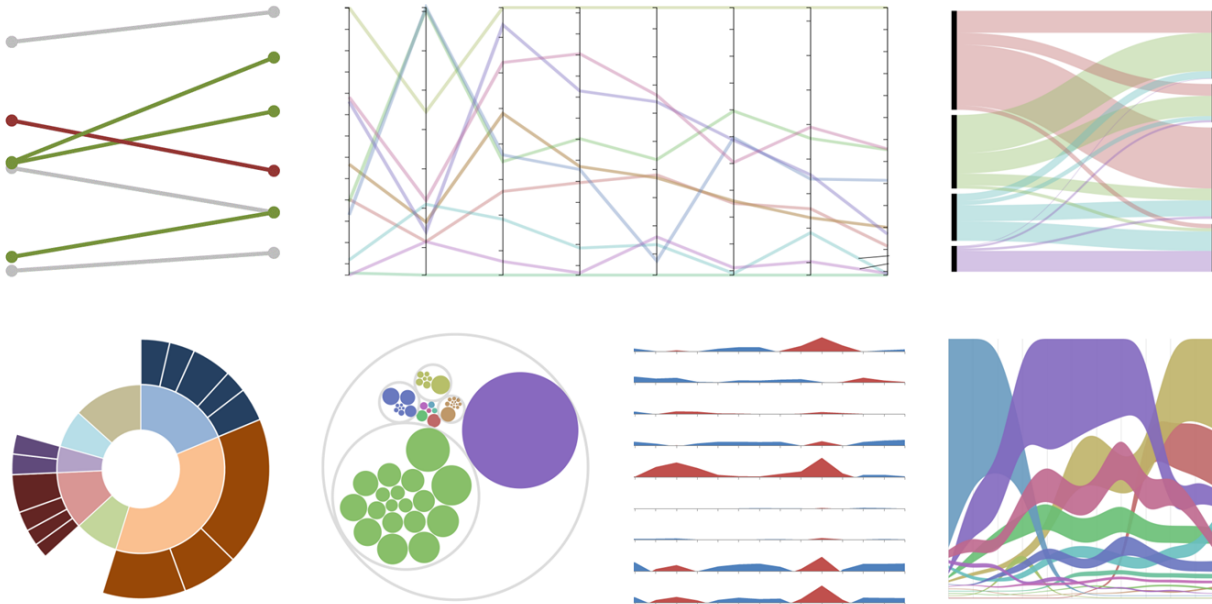
### Life Sciences



Use the NumPy ecosystem for life sciences research projects

Go

# Visualization



Visualization tools display data in a visual form that can highlight important features, relationships, commonalities, and anomalies. Visualization is often an important first step when exploring data sets, and it is important for summarizing and communicating results. As such, it can be useful in several phases of an analytic project:

Acquire → Process → Explore → (Transform → Analyze → Visualize) → Communicate

Next: add descriptions of visualization tools such as matplotlib, seaborn, Bokeh, ggplot, Pygal, Plotly, and geoplotlib. Descriptions could include the following:

- Overview
- Use cases, differentiators (types of plots, size of data sets, types of user interfaces and APIs supported)
- Links to the tools

This information could be summarized with a set of documentation maps: “If you want to ..., see ... <link>.” For an example, see the table after “Alright, So Which Should I Use?” at <https://realpython.com/python-histograms/>

Image courtesy of Evan Sinar, [medium.com/@EvanSinar](https://medium.com/@EvanSinar)

Tool differentiator notes courtesy of James Bednar, <https://www.anaconda.com/python-data-visualization-2018-why-so-many-libraries/>