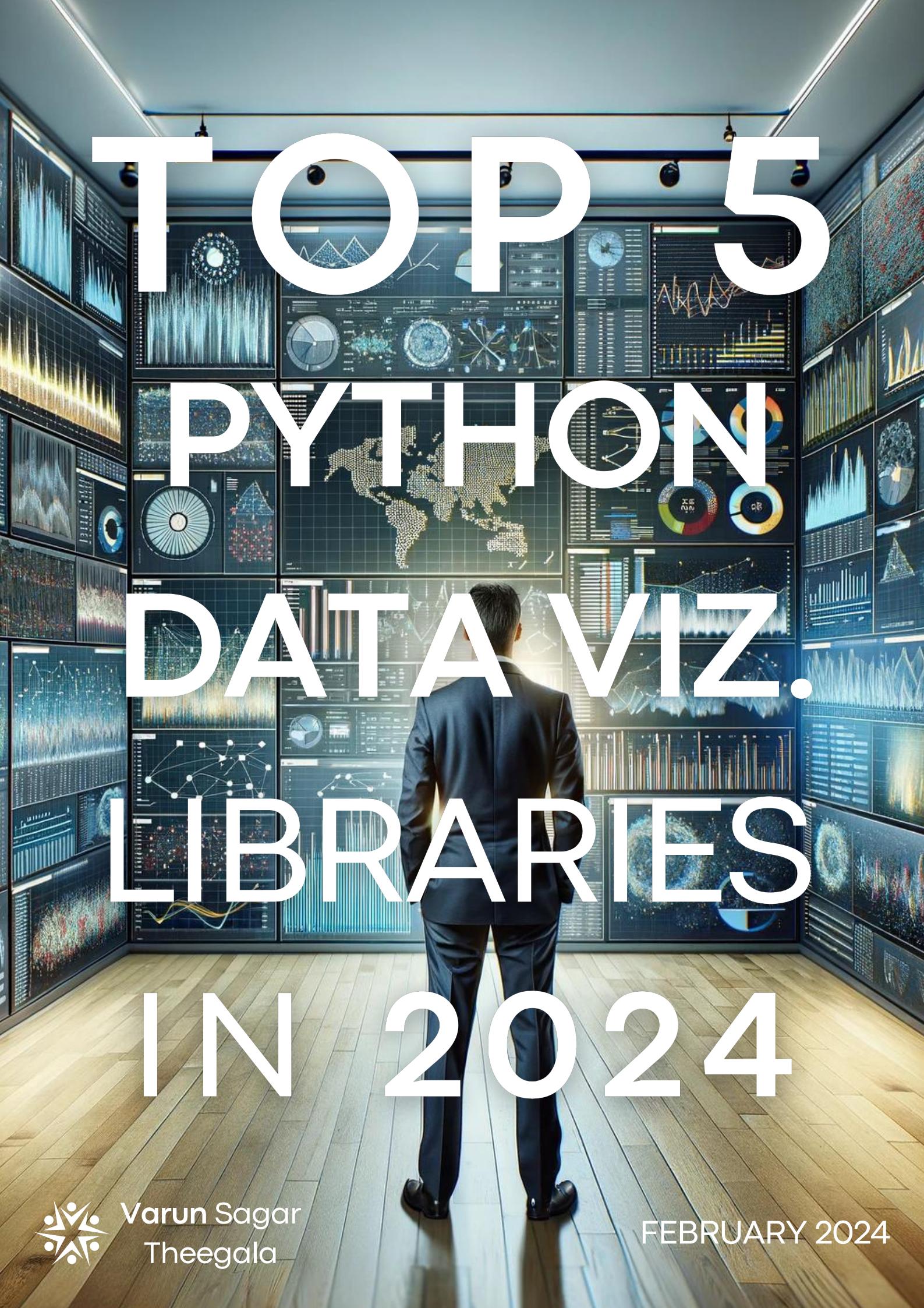


TOP 5 PYTHON DATA VIZ. LIBRARIES IN 2024

A man in a dark suit stands in a modern, well-lit room with a polished wooden floor, facing a massive wall of digital screens. The screens are filled with complex data visualizations, including a world map composed of small dots, various line graphs, pie charts, and network diagrams. The overall atmosphere is one of a high-tech control room or a futuristic office environment.

Varun Sagar
Theegala

FEBRUARY 2024

Python's amazing data visualization libraries have **made the job of creating charts an exciting process**

HOWEVER

Whether you're animating data for insight, creating interactive dashboards, or designing plots for scientific papers, **it's important to identify the right library** for the data story you wish to tell.



Here are the **TOP 5** Python
libraries for **Data**
Visualization, *along with*
their use-cases





OVERVIEW

Matplotlib stands as a pillar in the Python data visualization realm, enabling the creation of high-quality static, animated, and interactive visuals.

HIGHLIGHT

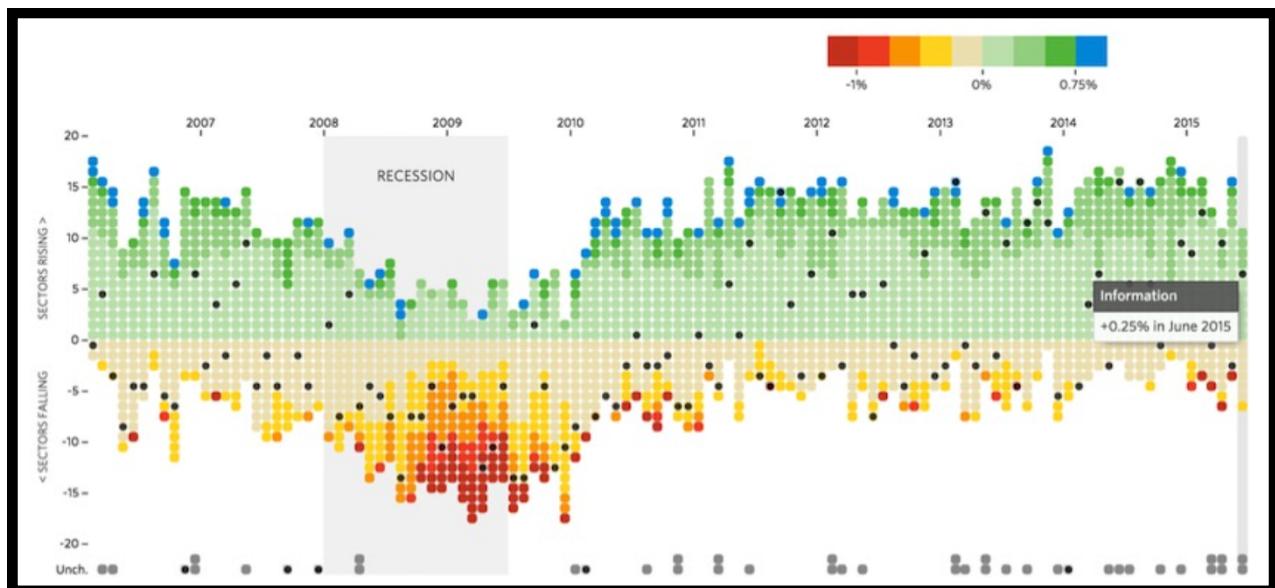
Mirroring MATLAB's plotting capabilities, Matplotlib is highly favored for its extensive customization options and broad backend support.





USE CASES

Ideal for researchers and developers needing detailed control for publications, Matplotlib excels in academic, scientific, and any environment where precise visual data representation is key.





seaborn

OVERVIEW

Seaborn enhances Matplotlib's foundation by offering a more visually appealing and easier-to-use interface for statistical data visualization.

HIGHLIGHT

It stands out for its built-in themes and color palettes designed to produce modern and attractive charts with minimal code.



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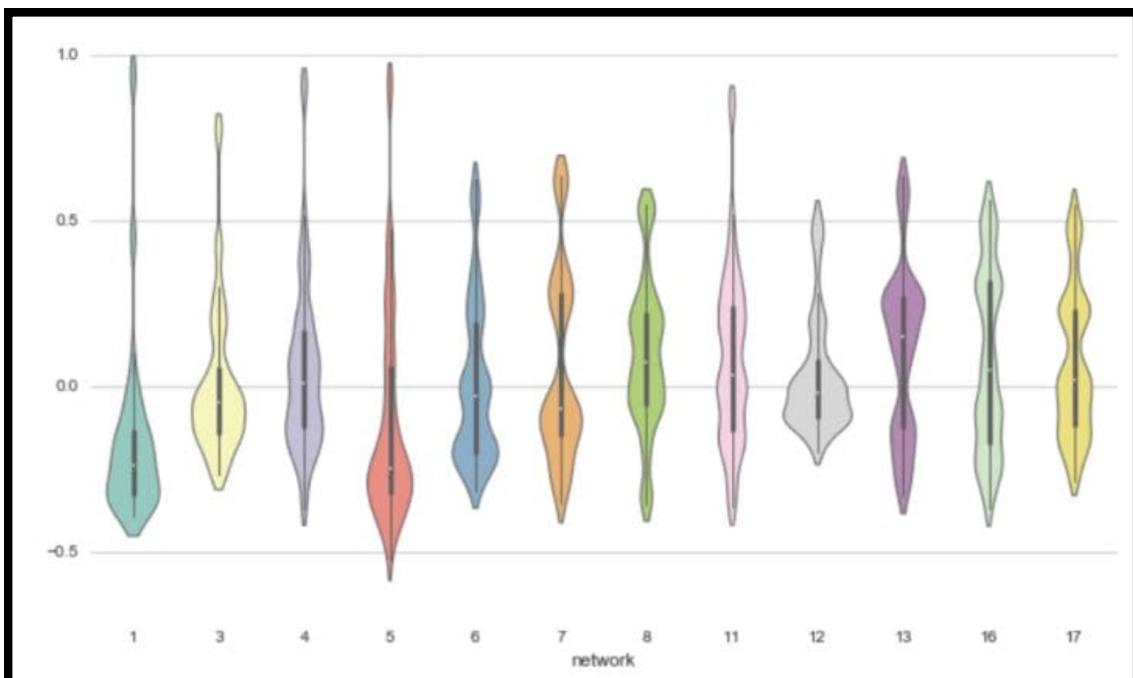
NEXT ➔



seaborn

USE CASES

Particularly useful for data analysts looking to present data insights clearly, Seaborn is the go-to for sophisticated statistical visualizations and exploratory data analysis.



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NEXT ➔



OVERVIEW

Plotly stands at the forefront of interactive and browser-based plotting, offering a wide range of chart types for diverse visualization needs.

HIGHLIGHT

Its declarative syntax and integration with plotly.js enable the creation of sophisticated and interactive charts, dashboards, and applications directly in Python.





USE CASES

Perfect for data scientists and engineers building complex analytical applications, Plotly enriches the data exploration experience with its comprehensive suite of interactive features.





OVERVIEW

Bokeh is distinct for its interactive visualization capabilities that cater to modern web browsers, offering dynamic and engaging data exploration experiences

HIGHLIGHT

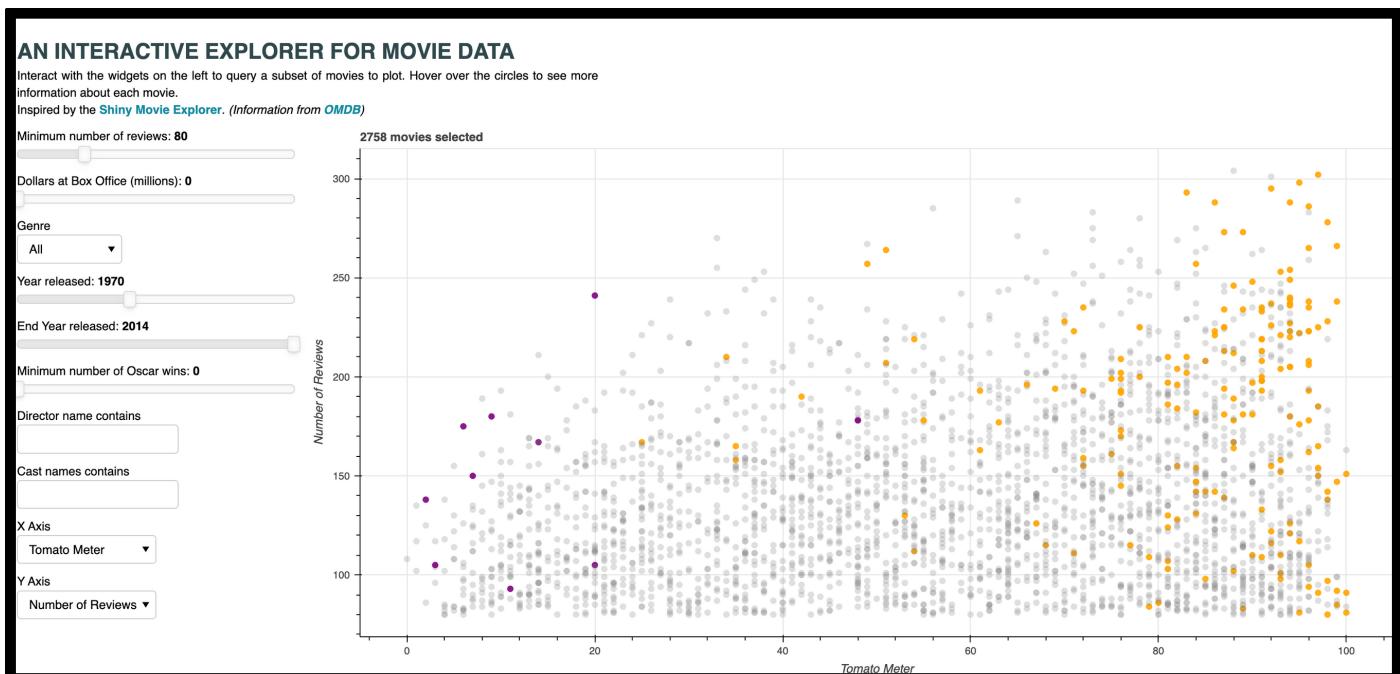
It's recognized for its scalability and ability to handle large or streaming data sets efficiently.





USE CASES

Developers and data professionals creating interactive web applications or dashboards will find Bokeh invaluable for its real-time data visualization features and interactivity.





OVERVIEW

Plotnine, based on the Grammar of Graphics, offers a declarative approach to data visualization, making plot composition intuitive and flexible.

HIGHLIGHT

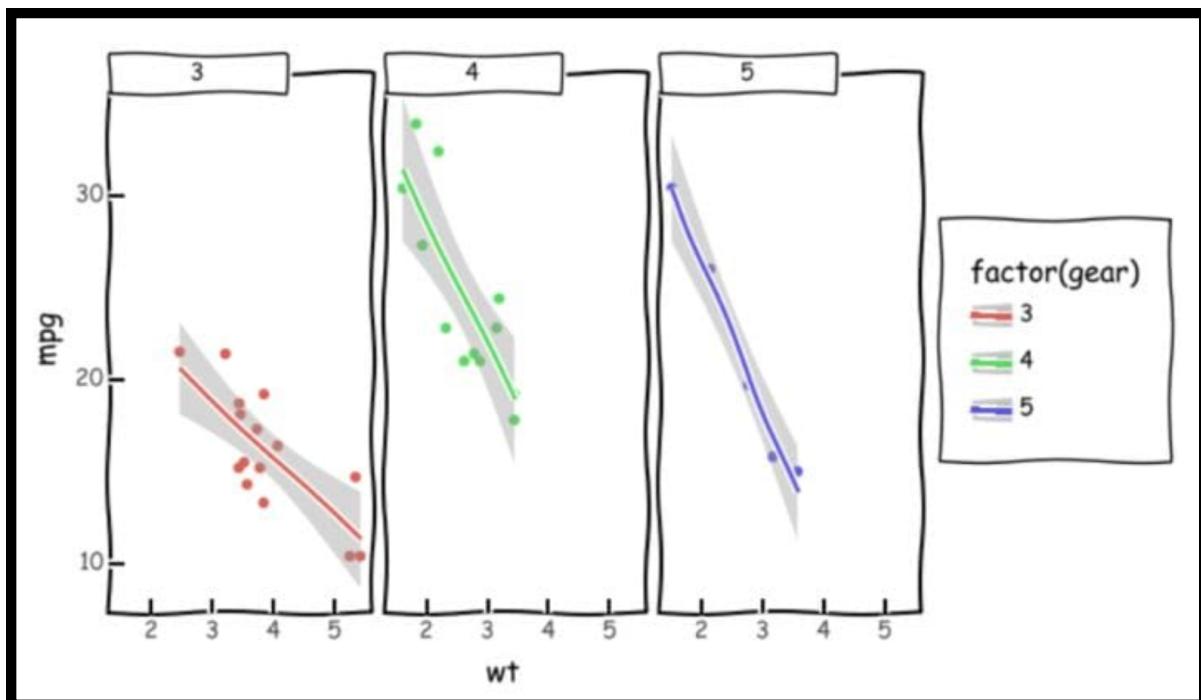
It brings the power of R's ggplot2 to Python, emphasizing layering components to build a plot iteratively.





USE CASES

Best suited for academics and data scientists who value structured plotting logic, Plotnine is ideal for creating publication-quality graphics that convey complex data stories.



+ BONUS:

LINK TO RESOURCES

- **Matplotlib:**
<https://matplotlib.org/stable/tutorials/index.html>
- **Seaborn:**
<http://seaborn.pydata.org/index.html>
- **Plotnine:**
<https://plotnine.readthedocs.io/en/stable/>
- **Bokeh:** <https://bokeh.org/>
- **Plotly:**
<https://plotly.com/python/>



REMEMBER

Choosing the right visualization library **can elevate your data analysis** from good to exceptional.

Each library offers **unique strengths** to make your data speak.

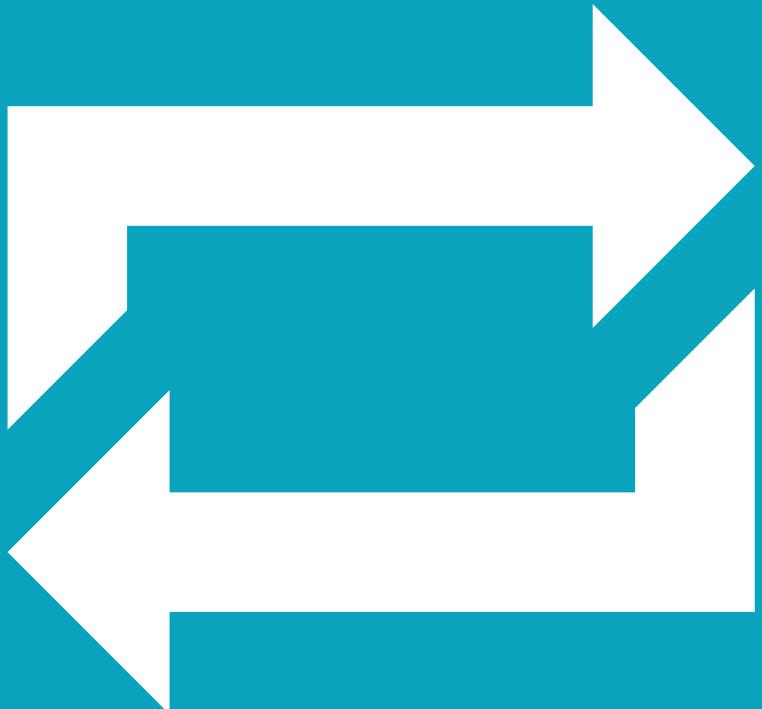
Dive deep, experiment, and let your data visualization skills shine in your projects.





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freshers and early
career
professionals
break into
Analytics