

# DATA X

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## Data Visualization: Plotly



# Plotly

[plotly.com/python](https://plotly.com/python)

# Plotly - About

## ***About Plotly:***

- From website: Plotly is an interactive, open-source plotting library that supports over 40 unique chart types.
- Usage: Plotly is advantageous for those who want an interactive environment which many use cases, ranging from statistics to finance to geography and more.

## ***Pros and Cons of Plotly:***

- Pro: Make **beautiful, interactive, exportable** figures in just a few lines of code.
- Pro: Much more interactive & visually flexible than Matplotlib or Seaborn.
- Con: Confusing initial setup to use Plotly without an online account, and lots of code to write.
- Con: Out-of-date documentation and the large range of Plotly tools (Chart Studio, Express, etc.) make it hard to keep up.

# Plotly - Installing

## ***Installing Plotly Offline: (if you want to host locally on your own computer)***

- Steps: You need to import packages and use commands:
  - Resource: Keep checking current version: [Initialization for Online Plotting](#)
  - Command to create standalone HTML: `plotly.offline.plot()`
  - Command to create plot in Jupyter Notebook: `plotly.offline.iplot()`

## ***Installing Plotly Online: (use if you want to host graphs in plotly account)***

- How to: You must create an account to run:
  1. Set up an account at [plot.ly](#)
  2. Get a User ID and API keys
  3. Sign keys into the account.

# Plotly - Alternatives (Bokeh, D3.js)

## ***Bokeh:***

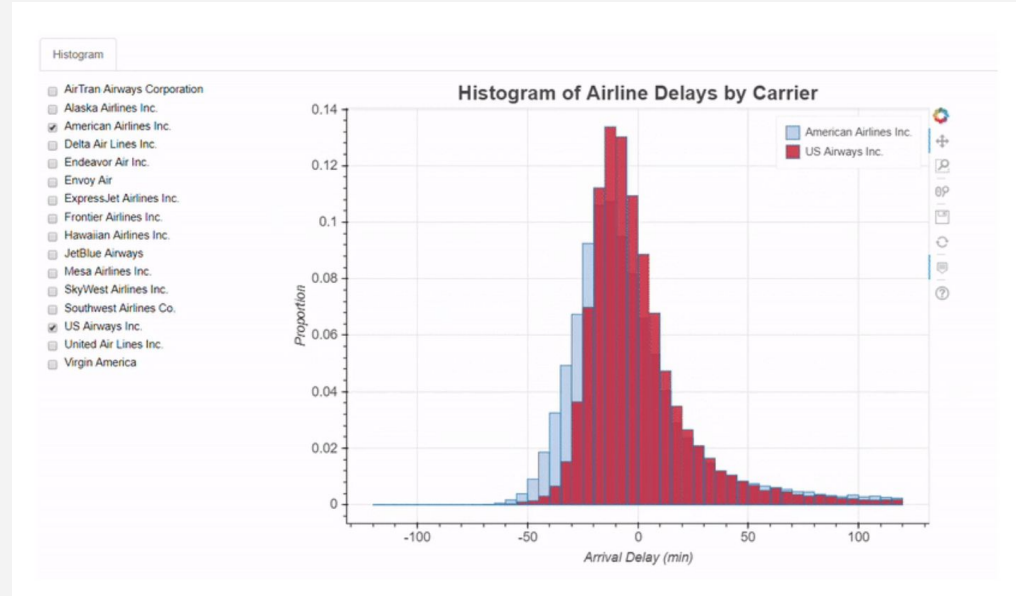
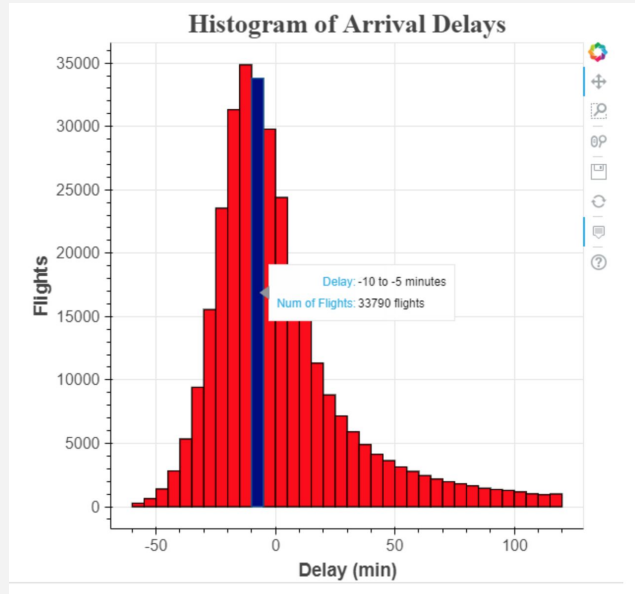
- Bokeh is an interactive visualization Python library.
- Provides elegant and concise construction of versatile graphics.
- Usage: Can be used in Jupyter Notebooks and can provide high-performance interactive charts and plots.

## ***D3.js:***

- D3.js (used with Flask) is a framework used with HTML, CSS, and Javascript together to create visualizations.
- Usage: Use D3.js build-in data-driven transitions for extra customization and elevated visualization for your data.
- Pro: Helps build type of framework you want (Plotly uses D3.js library, here you can use the D3.js library itself; open-source)
- Con: High learning curve; you need to learn HTML, CSS, Javascript

# Bokeh - Example

Example of using Bokeh from [article](#). Screenshots of interactive features that Bokeh offers:





# References

[Data Visualization - References](#)