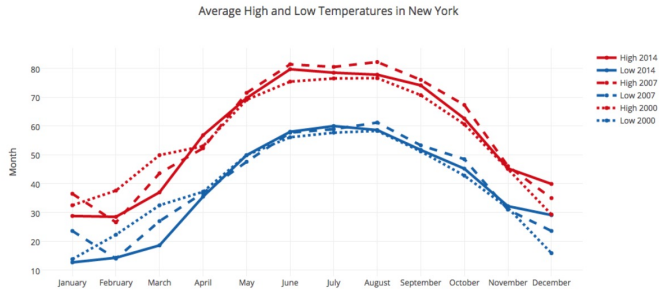
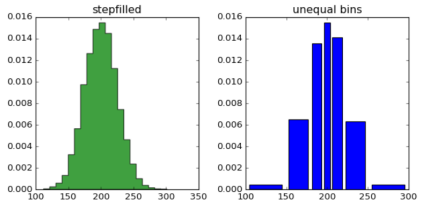
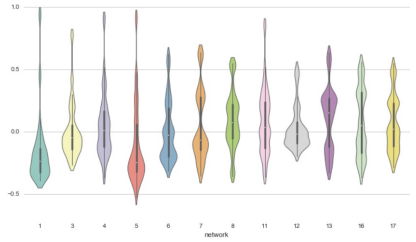
Python Tsunami

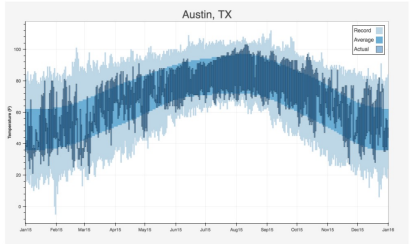
– April 7th-8th –

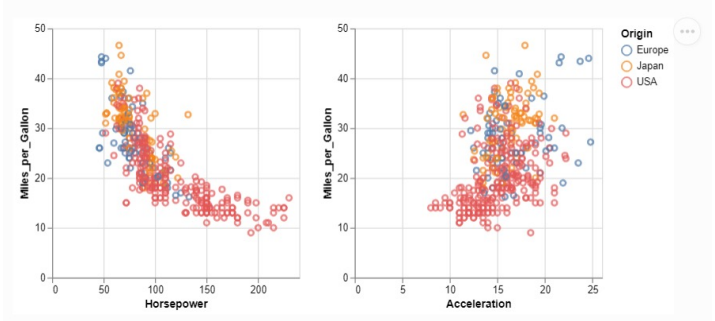
UCPH HeaDS

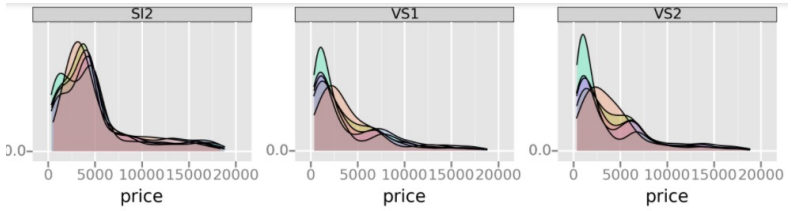












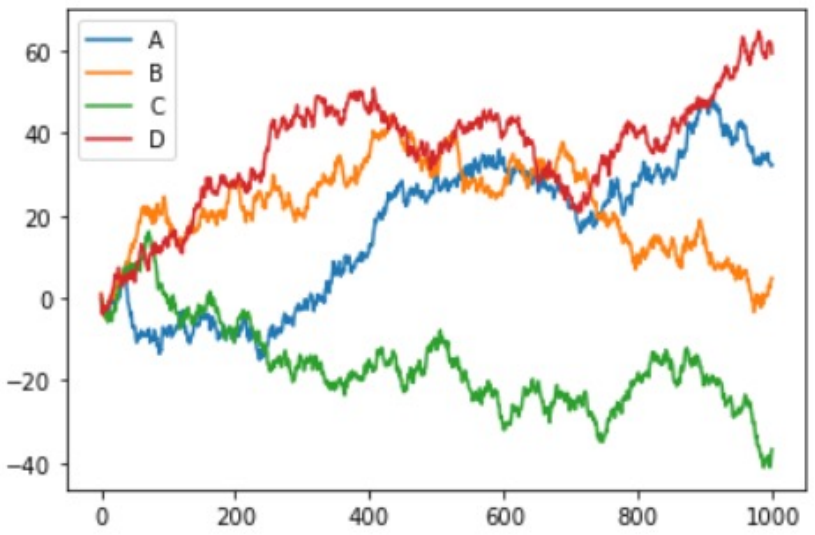
Visualizing Data with Python

- **Multiple Options (maybe too many)**
  - **Matplotlib** (https://matplotlib.org/)
  - **Seaborn** (https://seaborn.pydata.org/)
  - **plotnine** (ggplot-like) (https://plotnine.readthedocs.io)
  - **Bokeh** (https://bokeh.org/)
  - **Altair** (https://altair-viz.github.io/)
  - **Plotly** (https://plotly.com/python/)

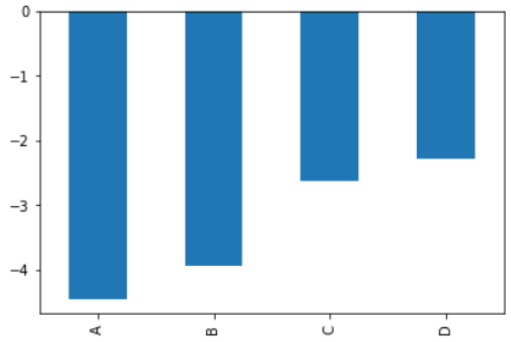
Also - Pandas

https://pandas.pydata.org/pandas-docs/stable/user_guide/visualization.html

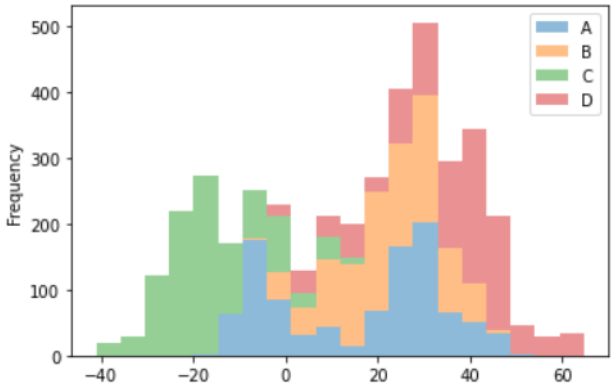
df.plot()



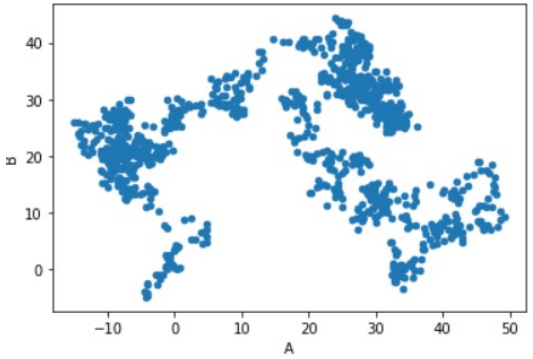
df.iloc[2].plot.bar()



df.plot.hist(stacked=True, bins=20, alpha=0.5)



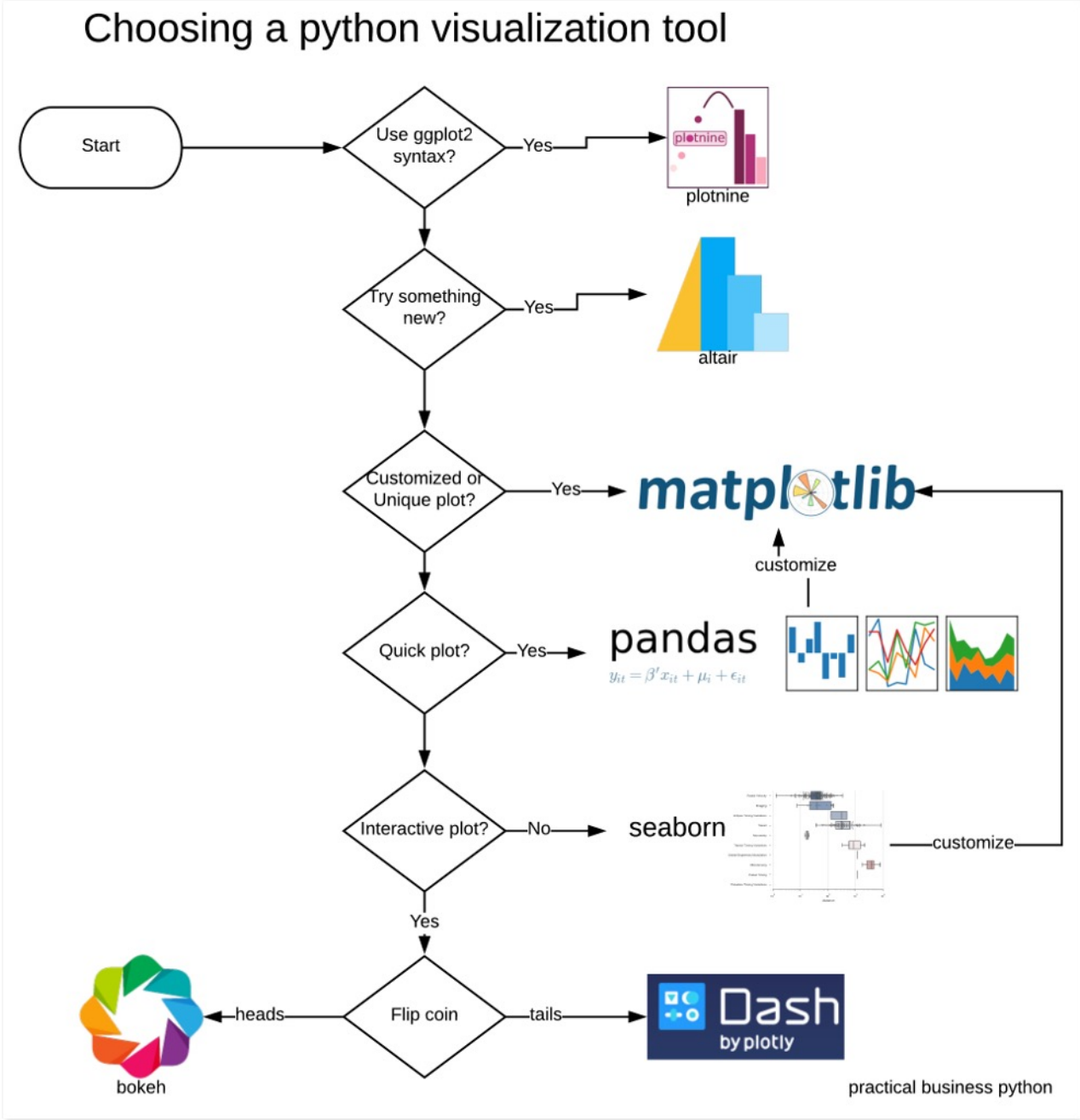
df.plot.scatter(x, y)



```python
from plotnine.data import economics
from plotnine import ggplot, aes, geom_line

(
    ggplot(economics)  # What data to use
    + aes(x="date", y="pop")  # What variable to use
    + geom_line()  # Geometric object to use for drawing
)
```

How Do you Pick One?



https://pbpython.com/python-vis-flowchart.html

We Chose Plotly

https://plotly.com/python/

Works well with Pandas

Easy to use

Publication-ready

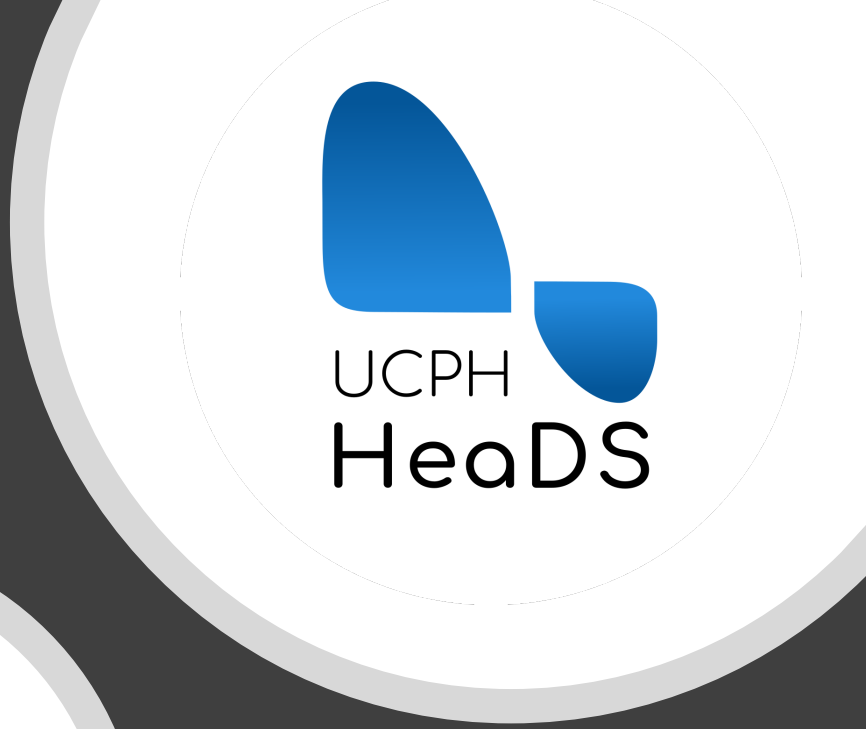
Interactive

Works with other languages

https://plotly.com/r/

Open in Colab


BIG DATA
INSTITUTE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