

Advanced Visualization and A/B Testing

WEEK 5

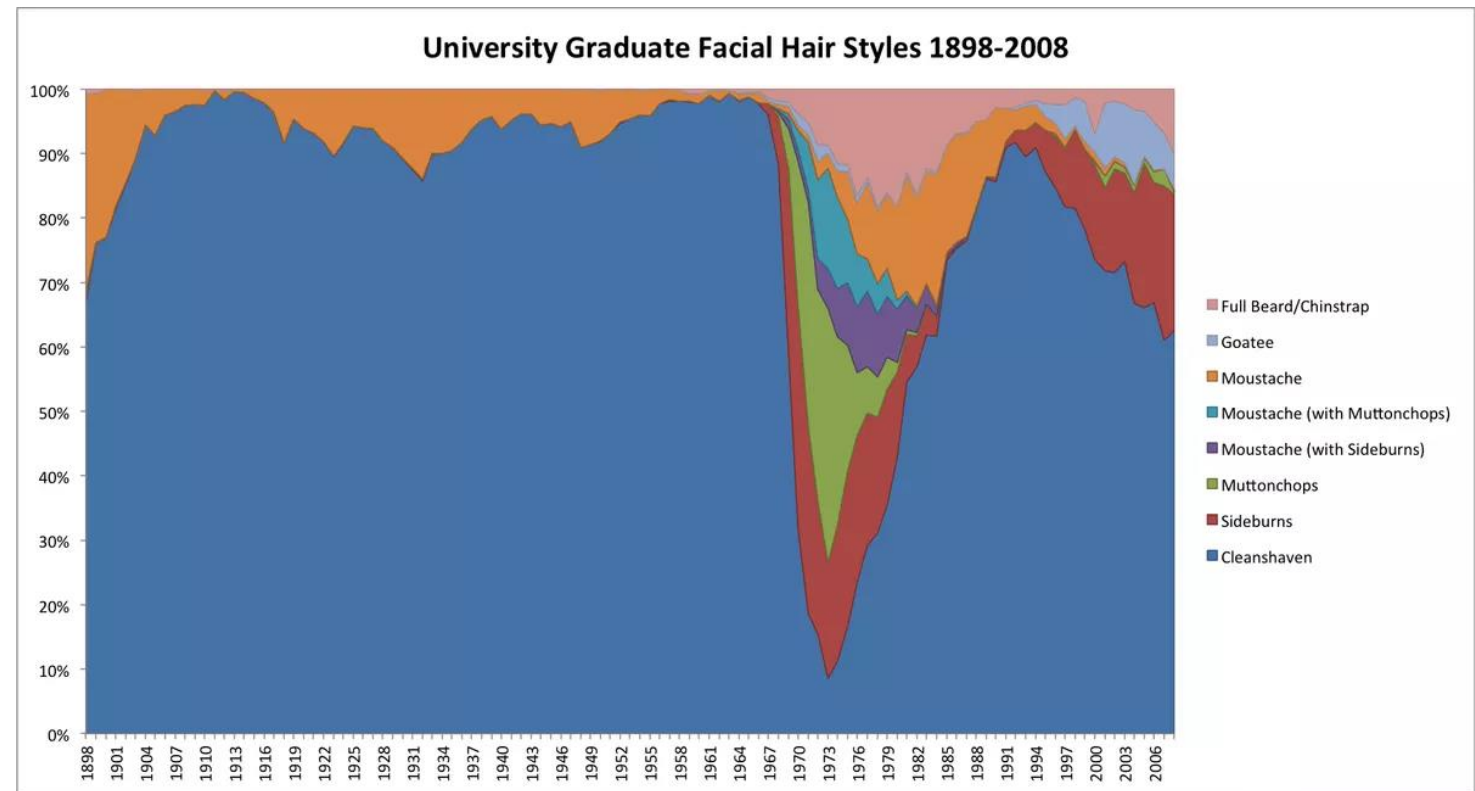
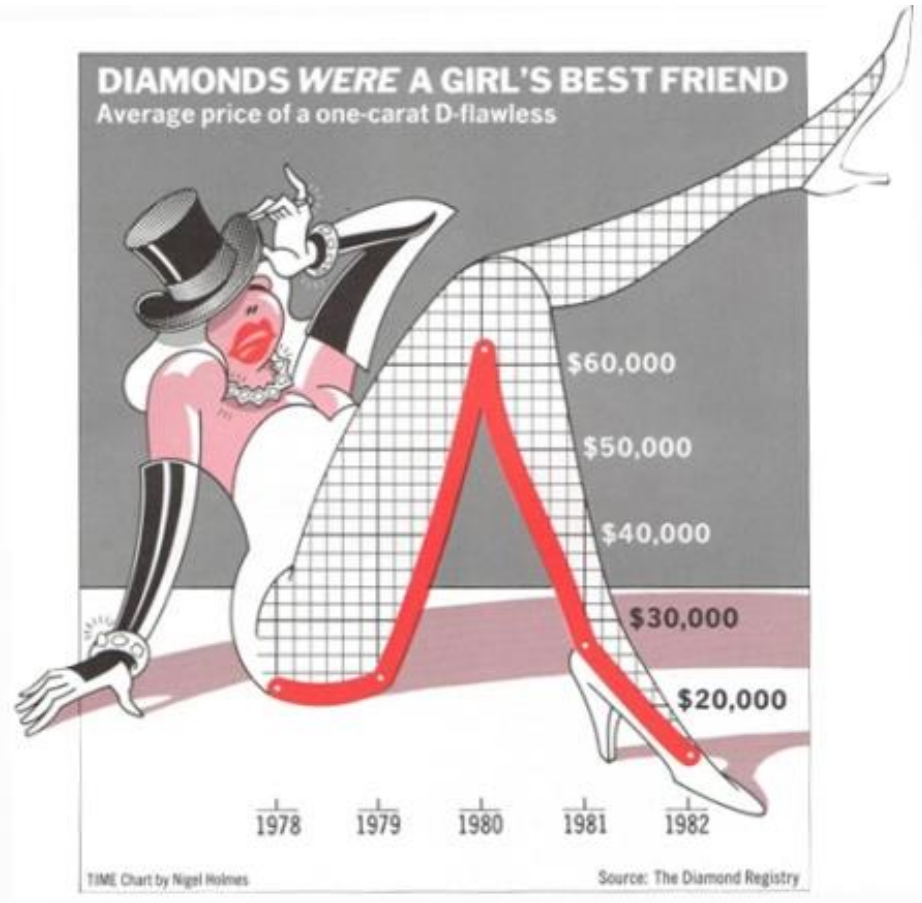
Outline

Advanced visualization in Python

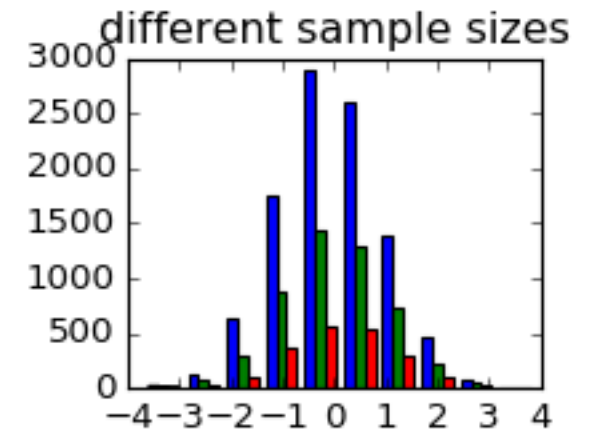
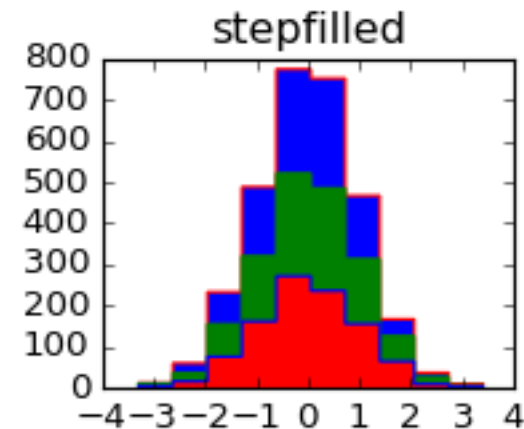
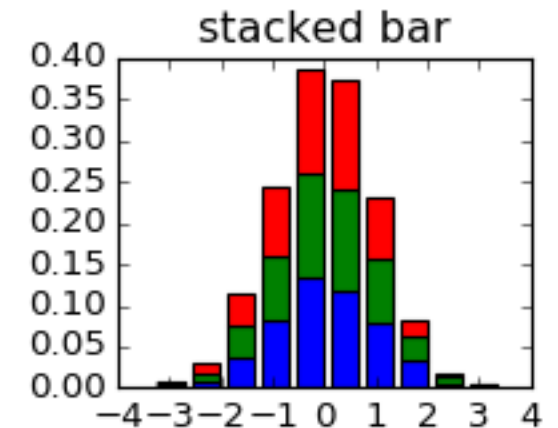
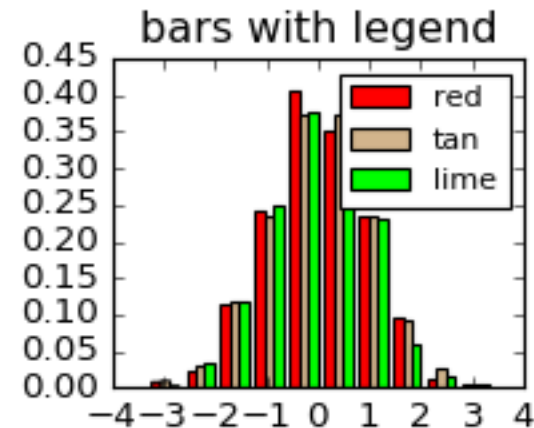
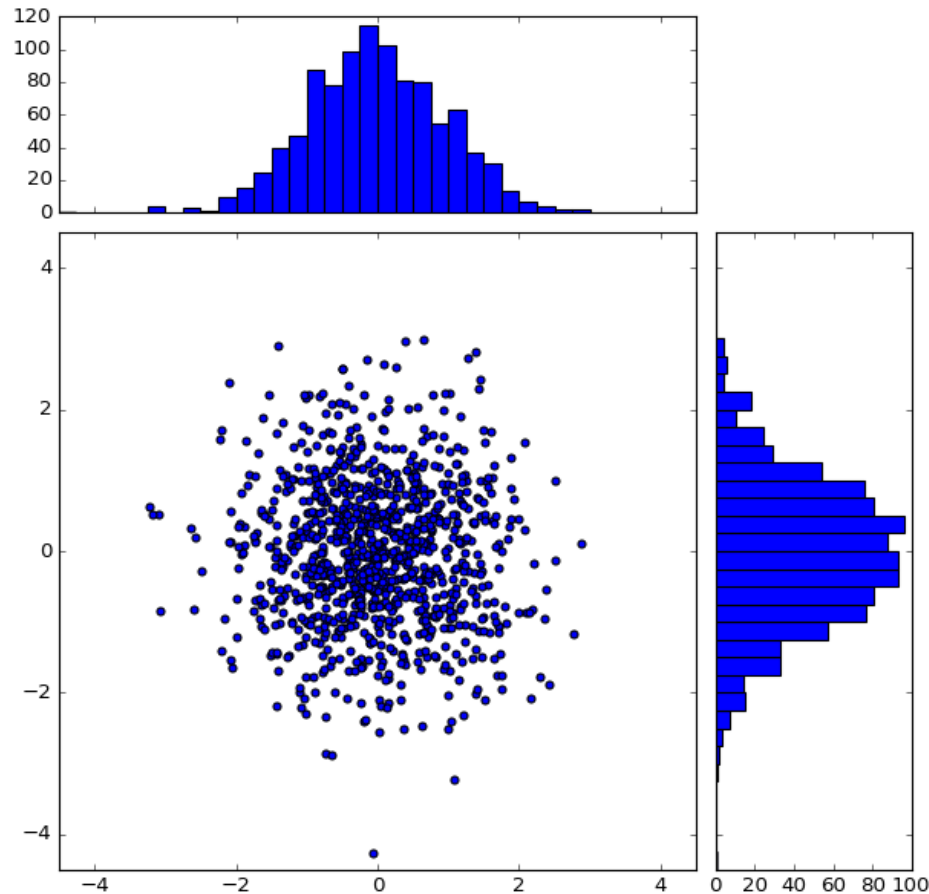
Exploratory analysis

A/B testing

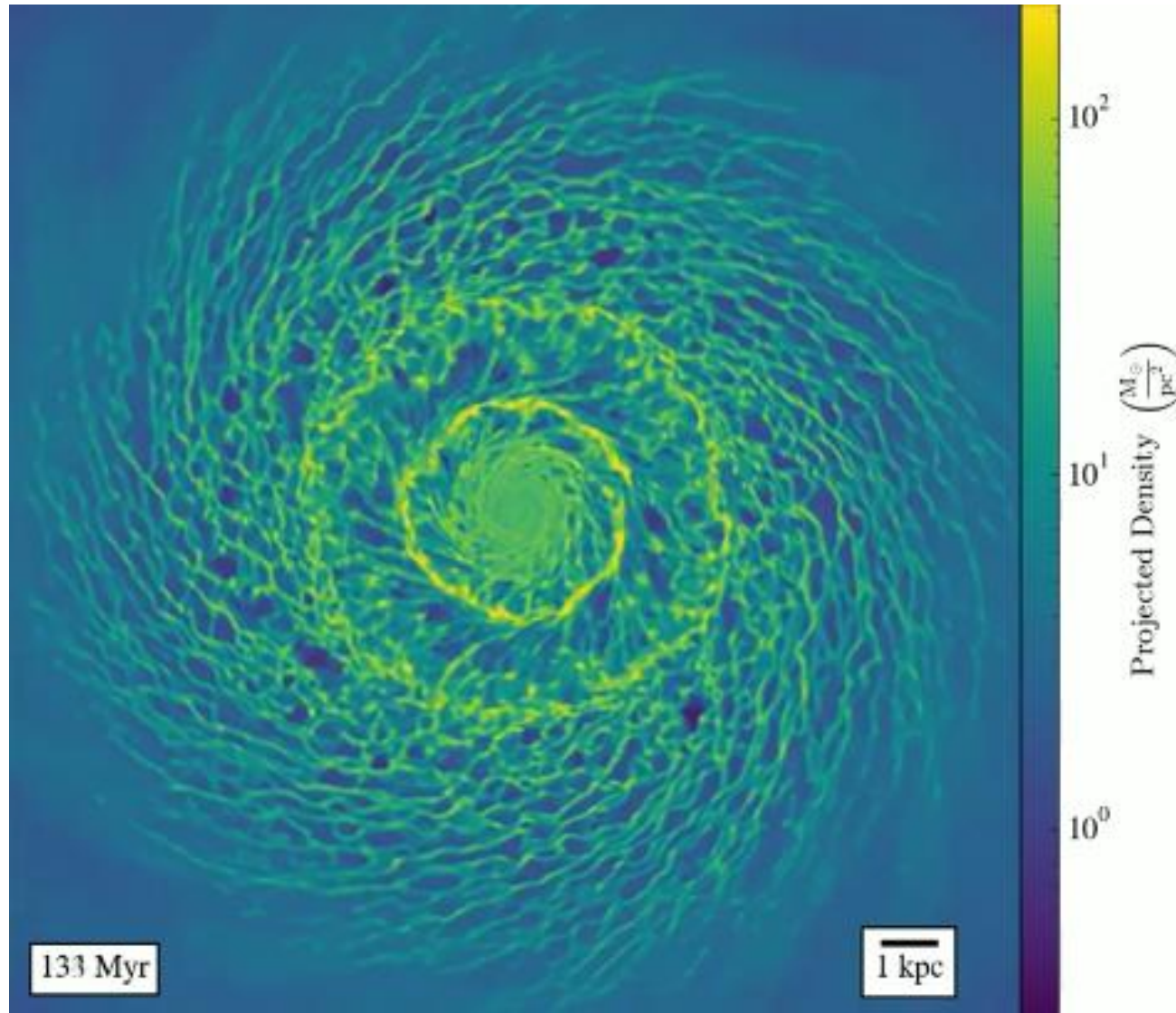
What is data visualization?

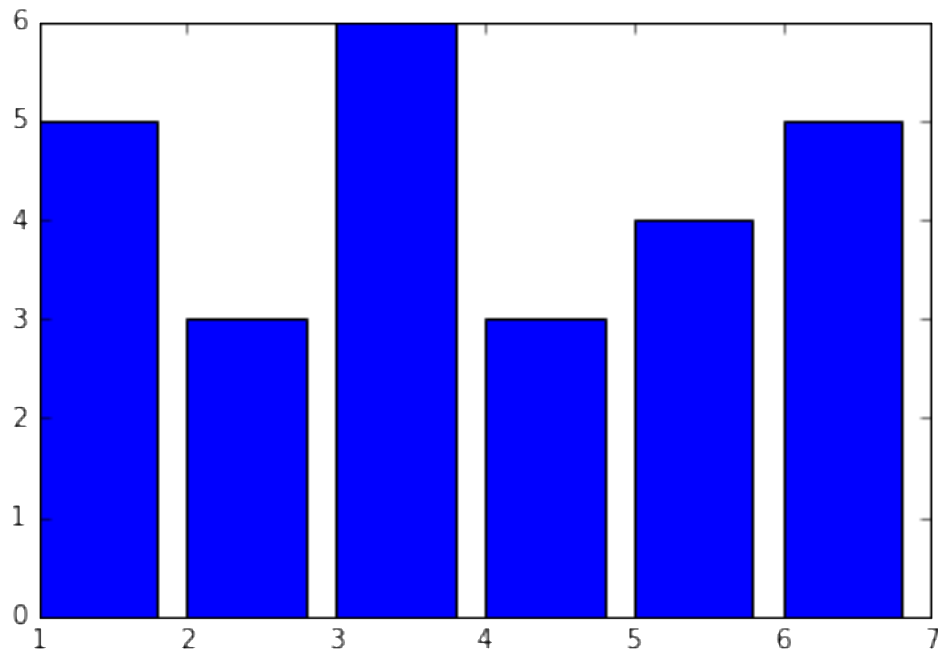
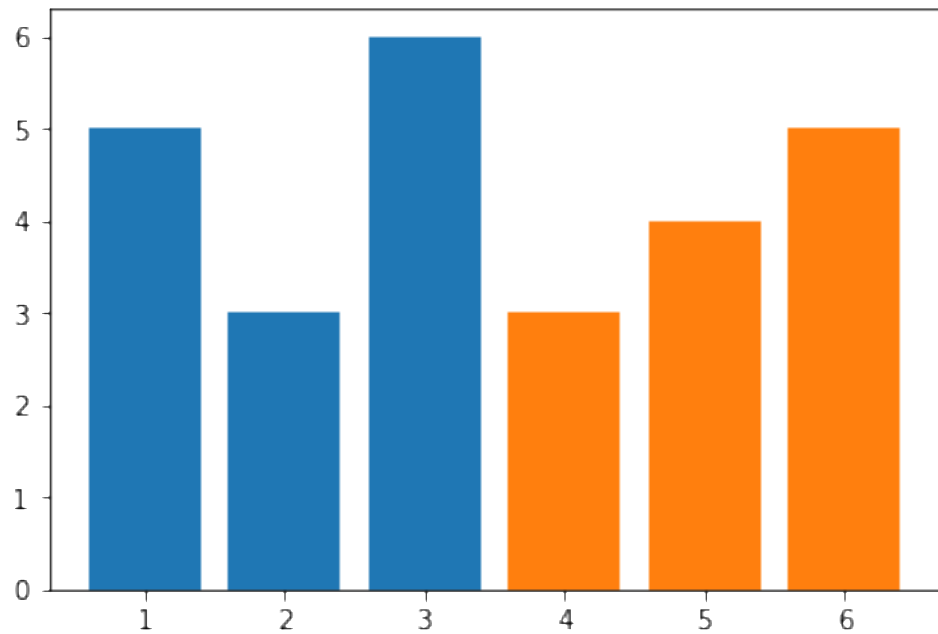


Matplotlib: Godfather of Python visualization



Matplotlib 2.0 is here!





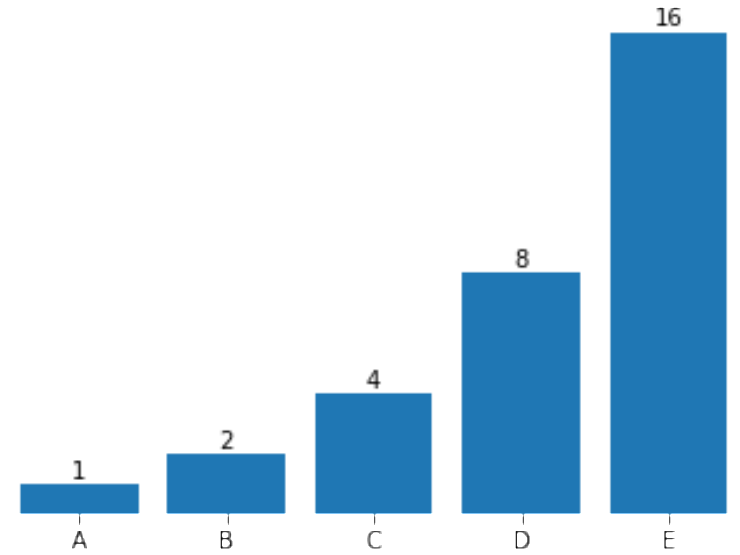
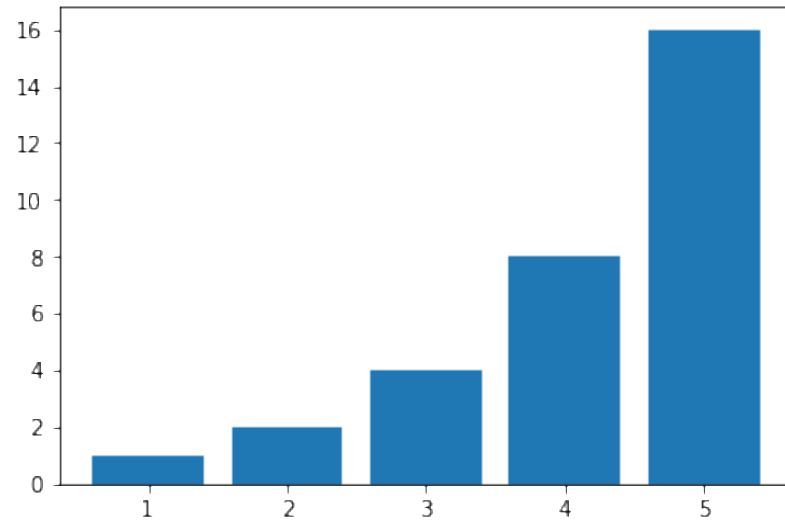
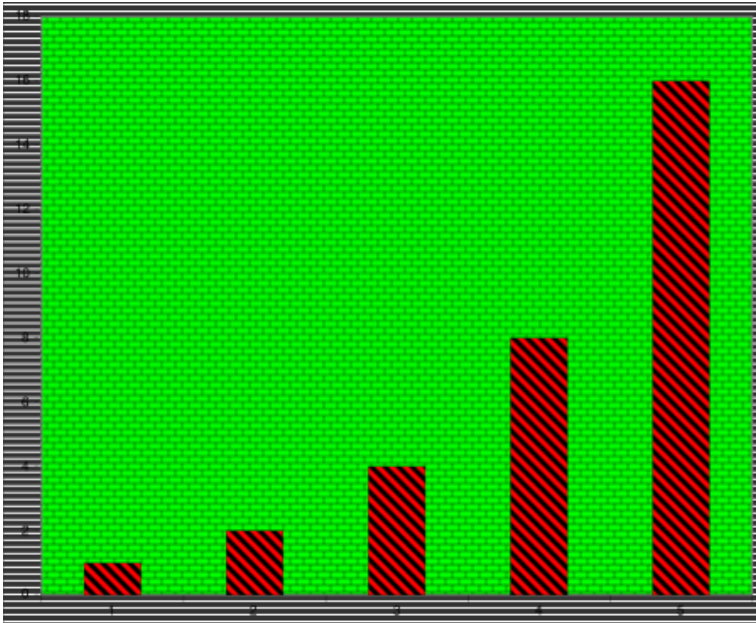
Which one do you like?

With the same code as below:

```
fig, ax = plt.subplots()
plt.bar([1, 2, 3], [5, 3, 6])
plt.bar([4, 5, 6], [3, 4, 5])
```

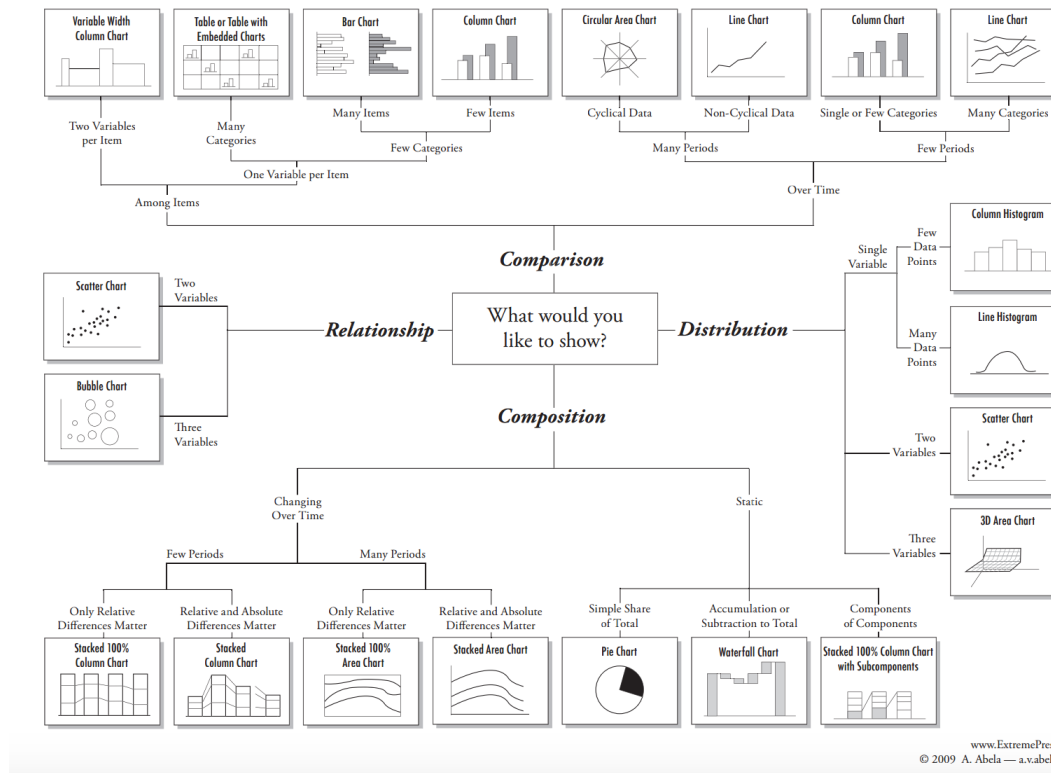
Data-ink ratio

Chartjunk is bad to deliver message clearly

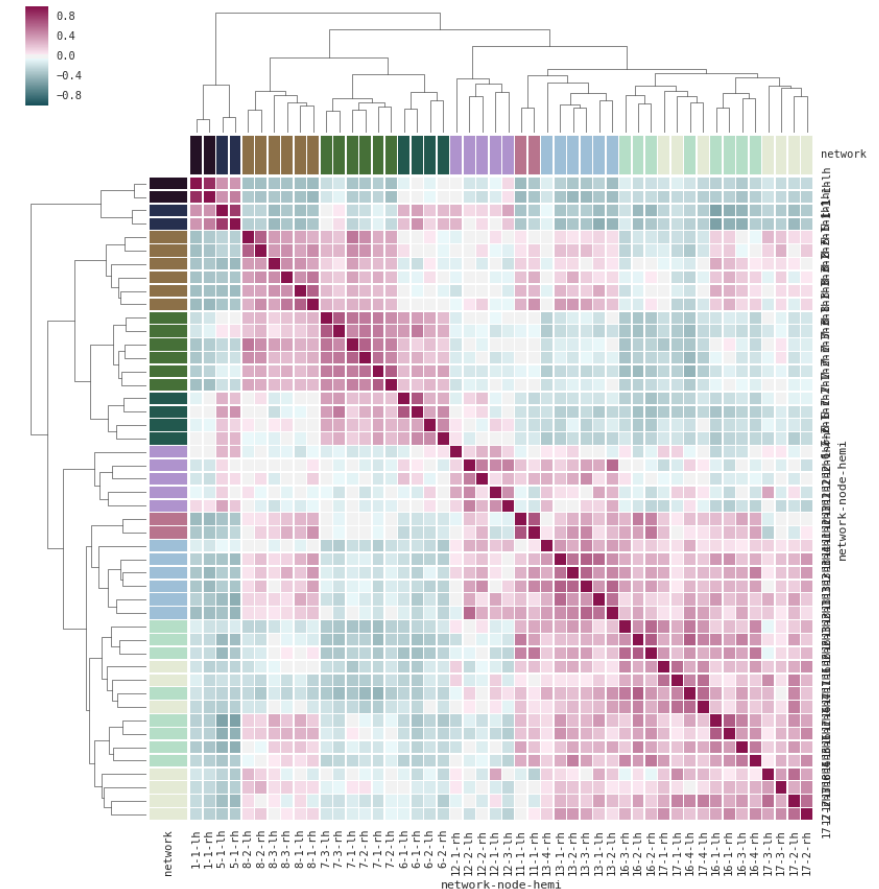
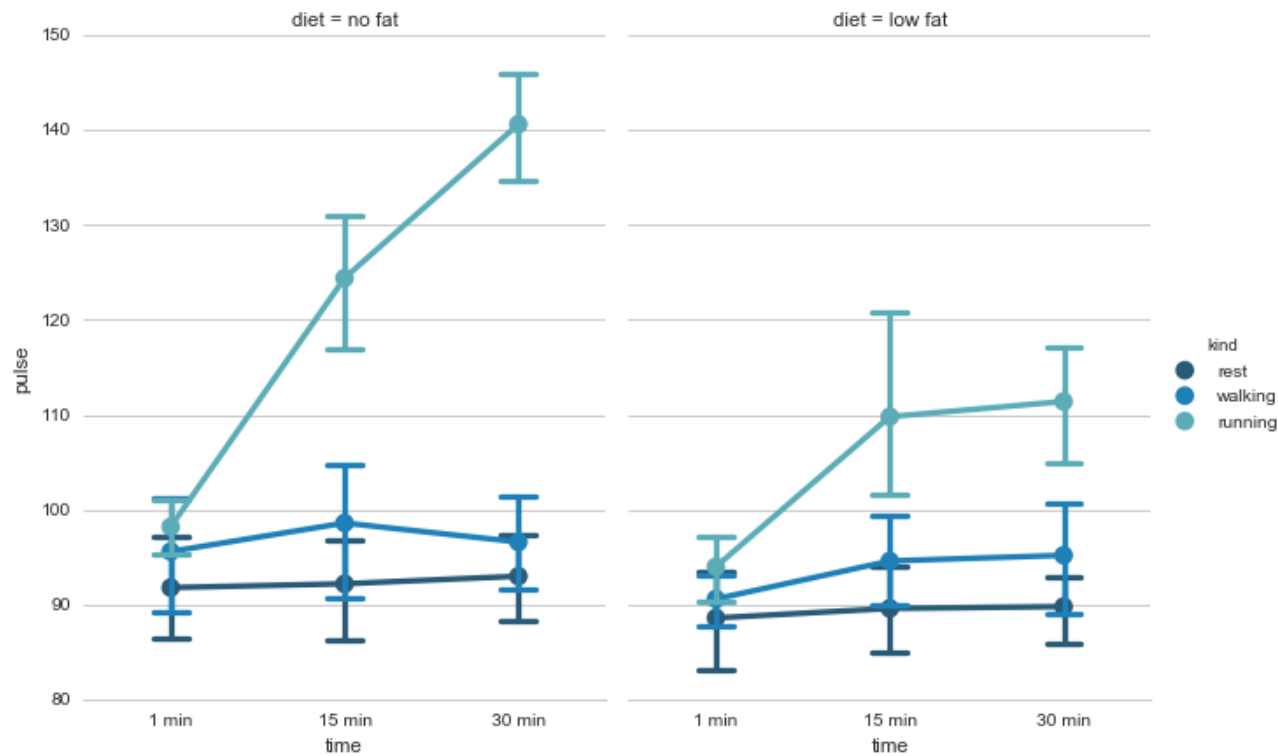


Common charts

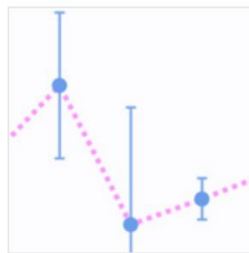
Chart Suggestions—A Thought-Starter



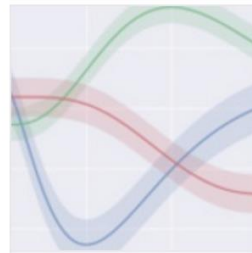
Seaborn: beautiful extension for data analytics



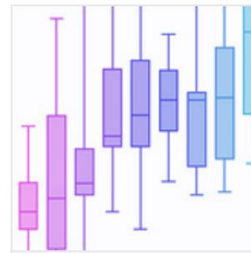
Plotly: modern interactive visualization for Python



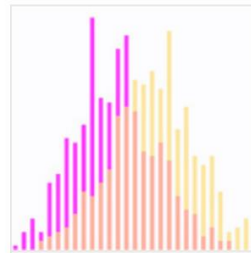
Error Bars



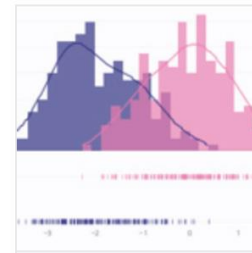
Continuous
Error Bars



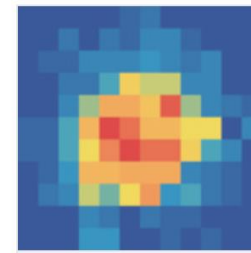
Box Plots



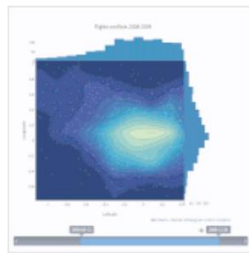
Histograms



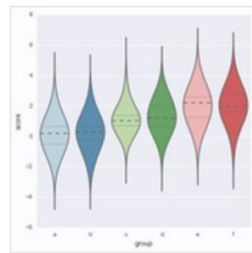
Distplots



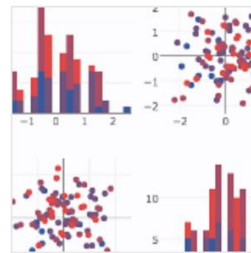
2D
Histograms



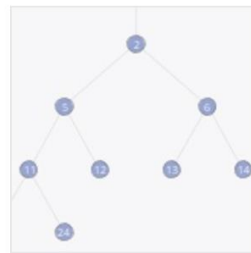
2d Density
Plots



Violin Plots



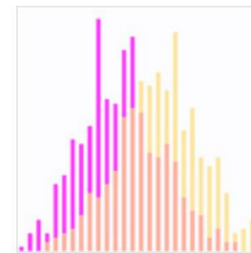
Scatterplot
Matrix



Tree-plots



Treemaps



Histogram
Tutorial

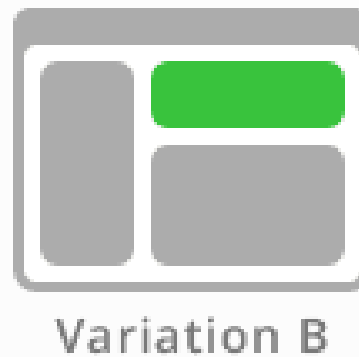
A/B Testing


50 % visitors
see variation A



23%
conversion


50 % visitors
see variation B



11%
conversion