# Data Visualization in Python using seaborn and matplotlib

#### Learning goals:

- Understand the Python data viz landscape
- Learn fundamentals of matplotlib and seaborn
- Practice making plots

Sam Lau

samlau.me

lau@ucsd.edu

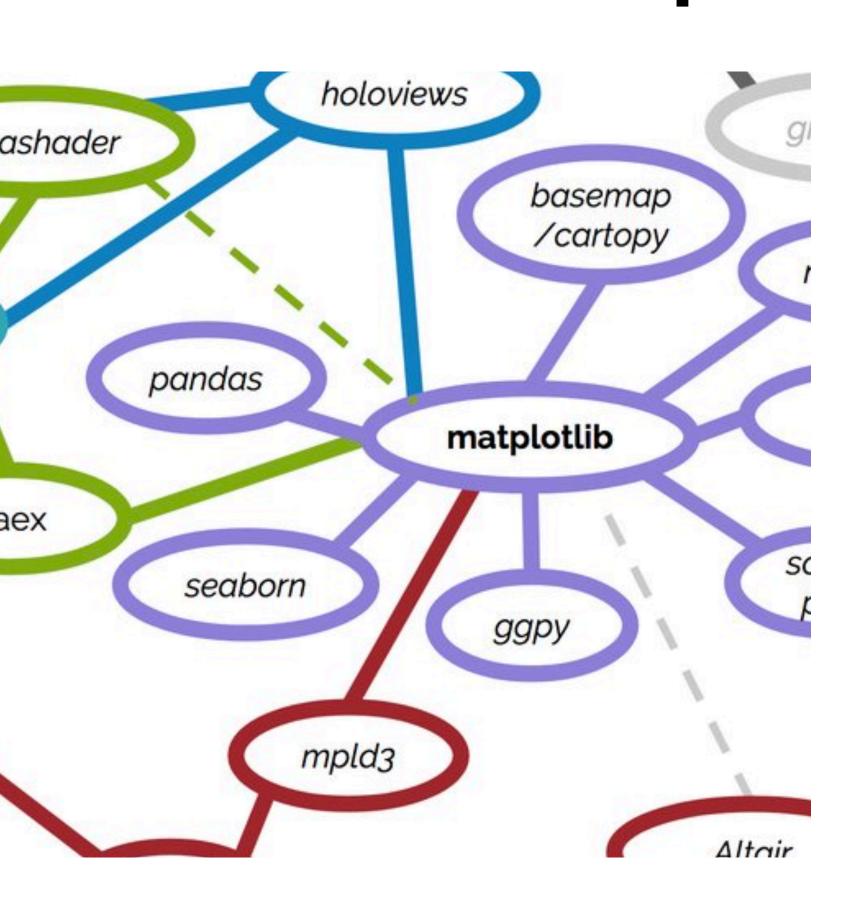
Python Workshop Winter 2020

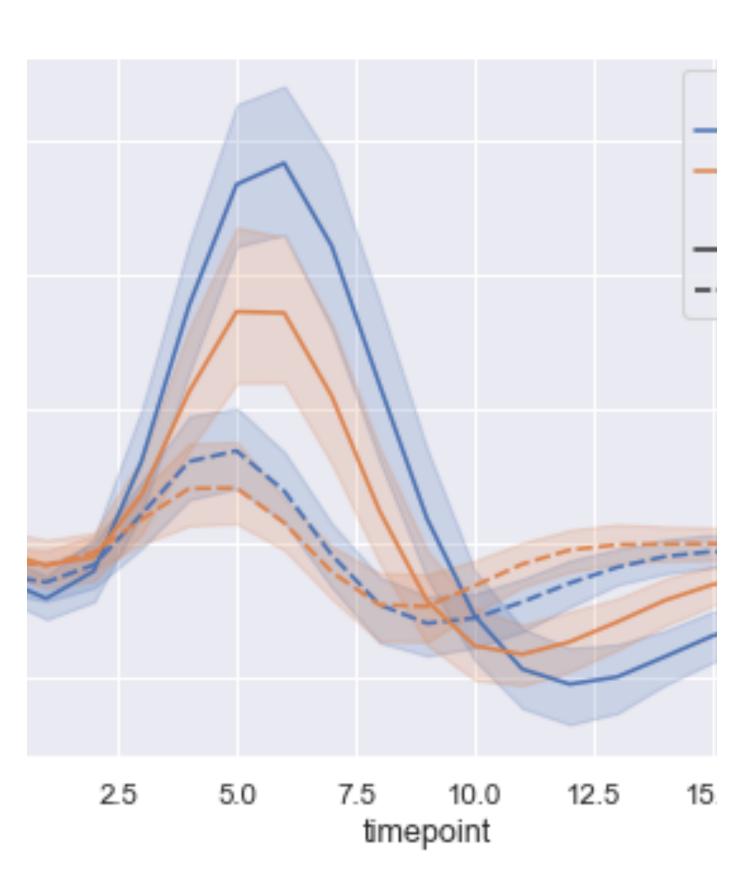
March 3, 2020

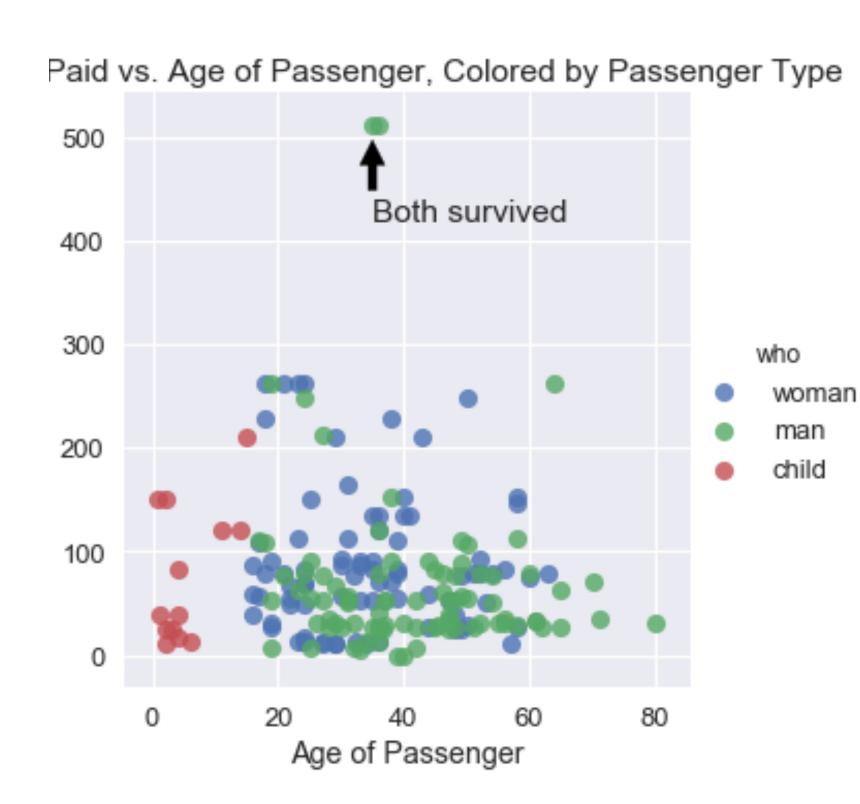
OH: Fri 11a-12p in SSRB 100

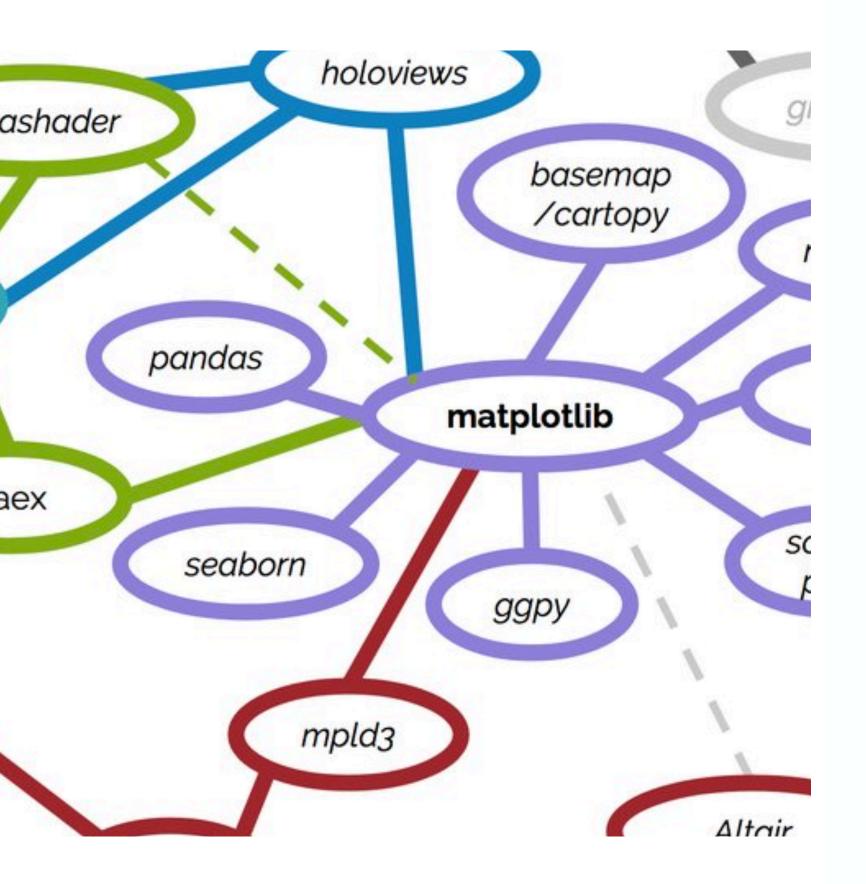
#### Using seaborn

## Fine-tuning using matplotlib

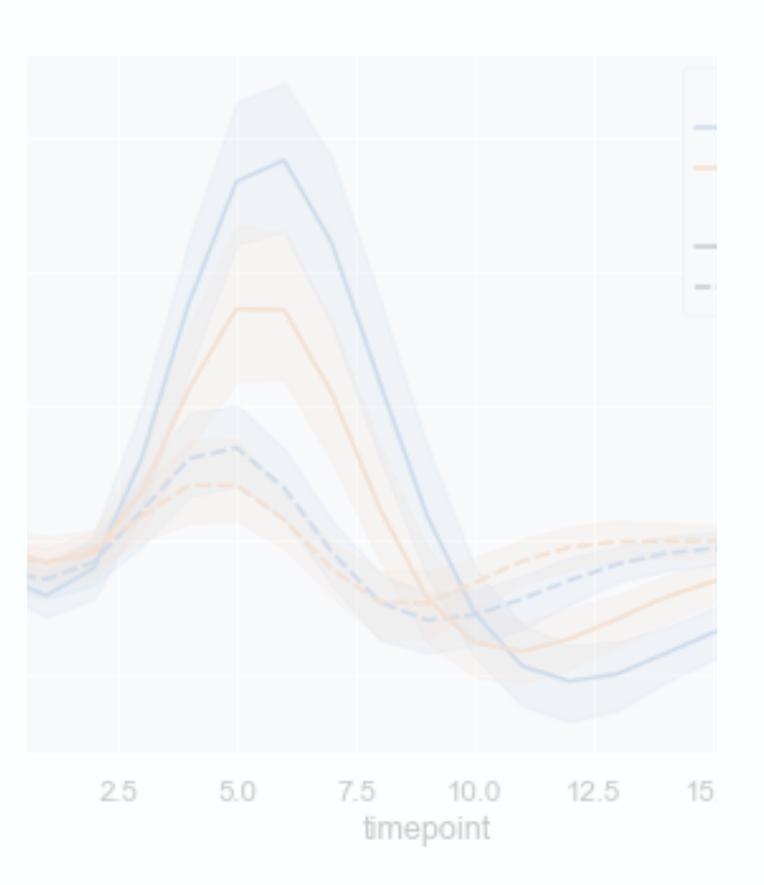




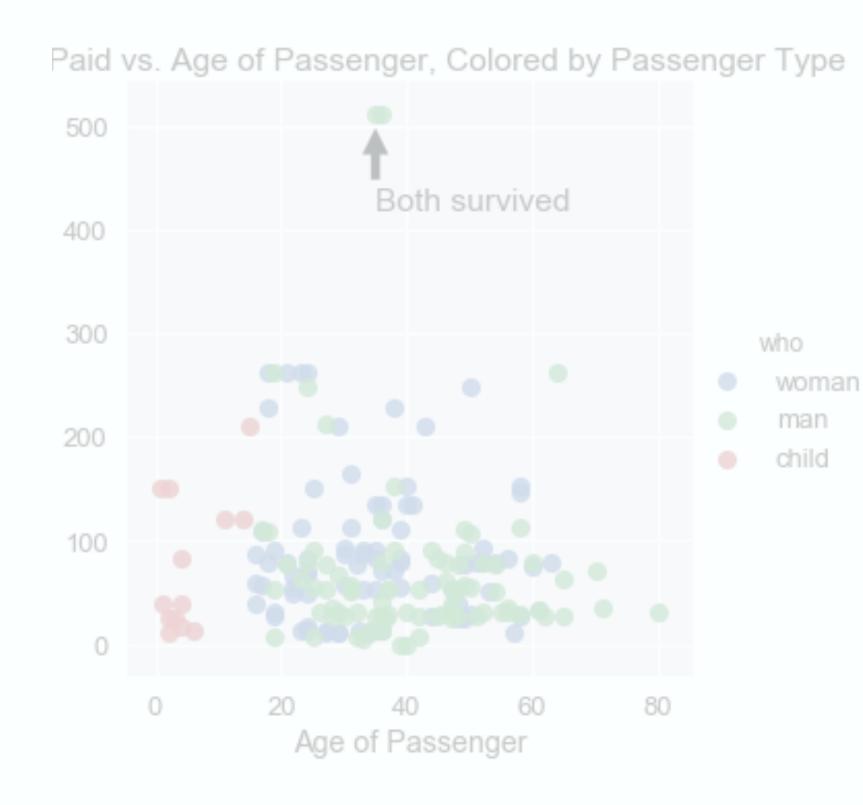


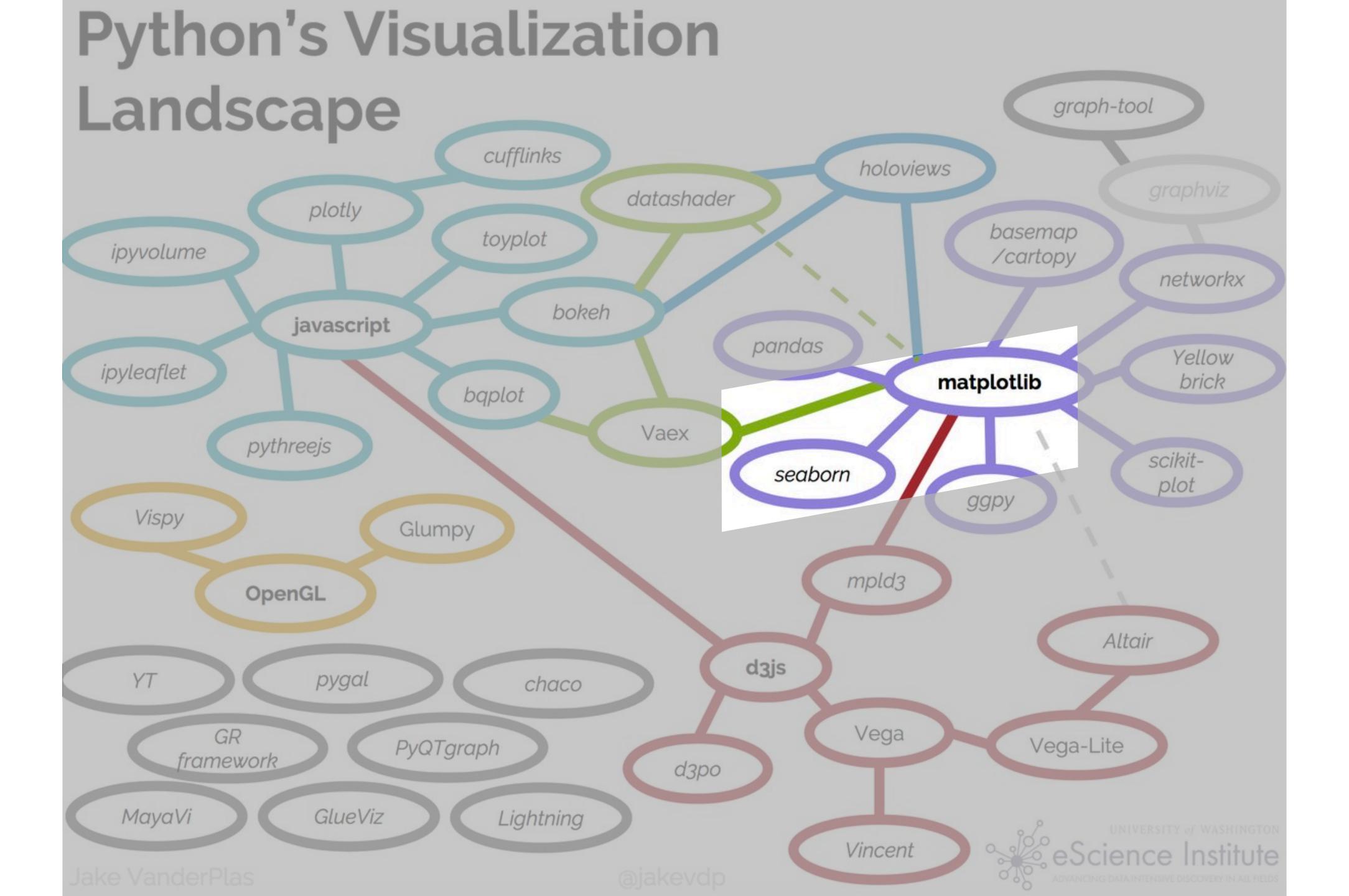


#### Using seaborn

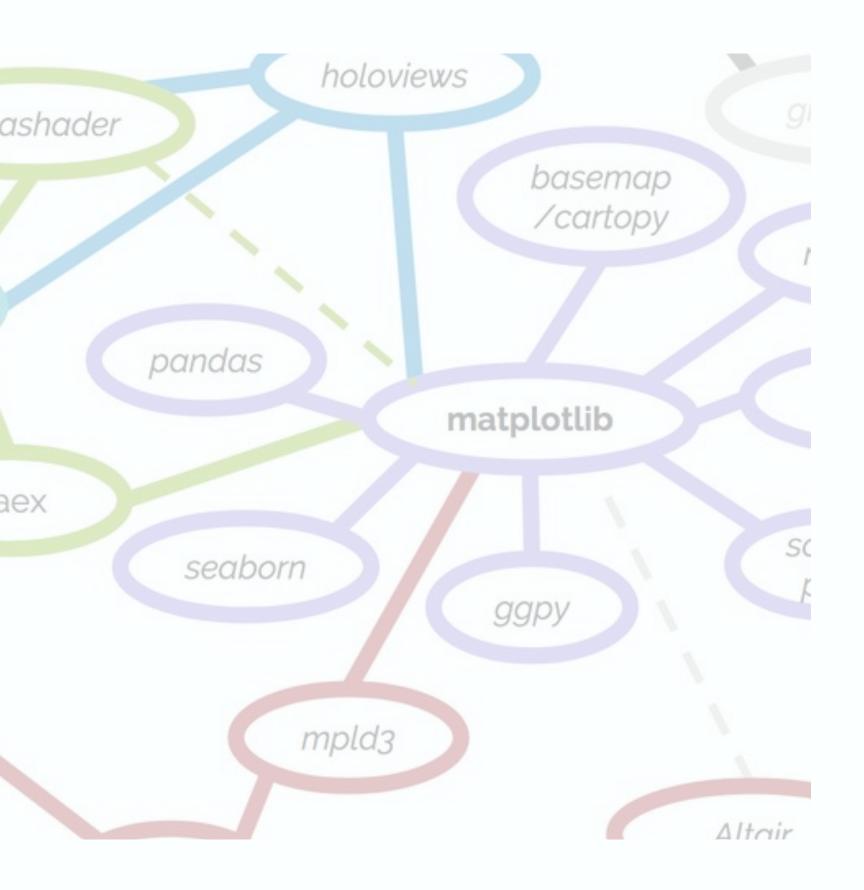


## Fine-tuning using matplotlib

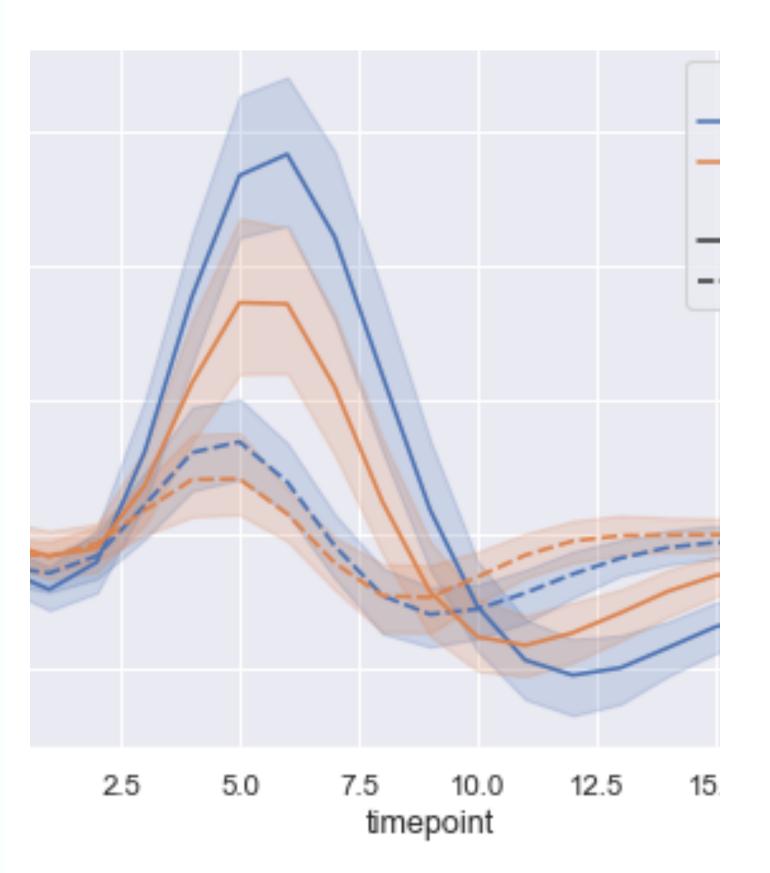




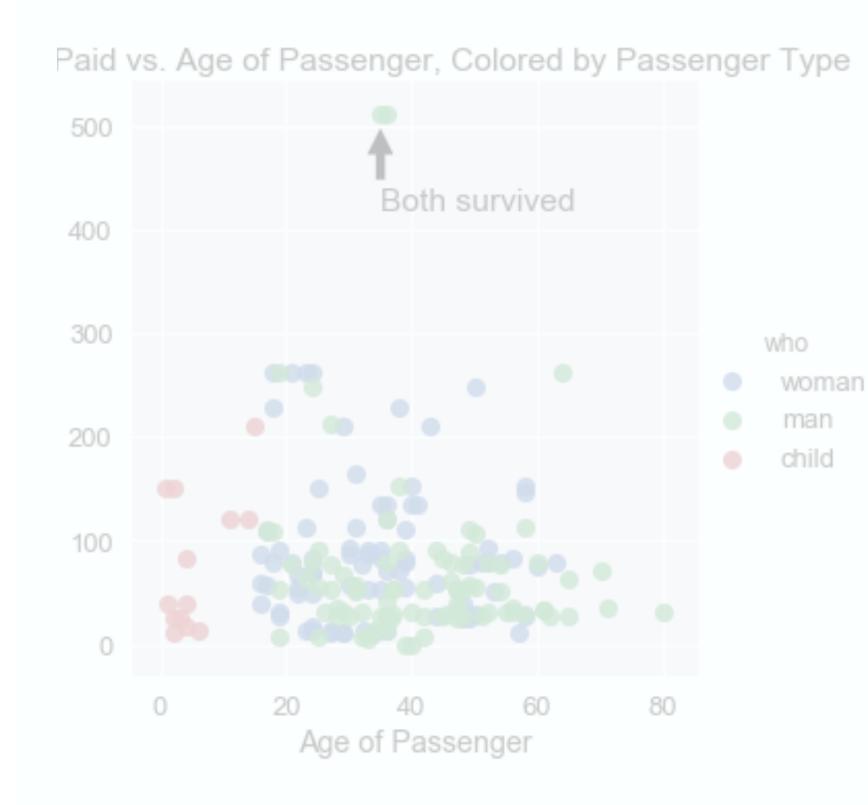
Python's Visualization Landscape graph-tool cufflinks holoviews graphviz datashader plotly basemap toyplot ipyvolume /cartopy networkx bokeh javascript pandas Yellow ipyleaflet matplotlib brick bqplot Vaex pythreejs scikitseaborn plot ggpy Vispy Glumpy mpld3 **OpenGL** Altair d3js pygal chaco Vega GR PyQTgraph Vega-Lite framework d3po Lightning GlueViz MayaVi UNIVERSITY of WASHINGTON Vincent eScience Institute @jakevdp Jake VanderPlas



#### Using seaborn



## Fine-tuning using matplotlib



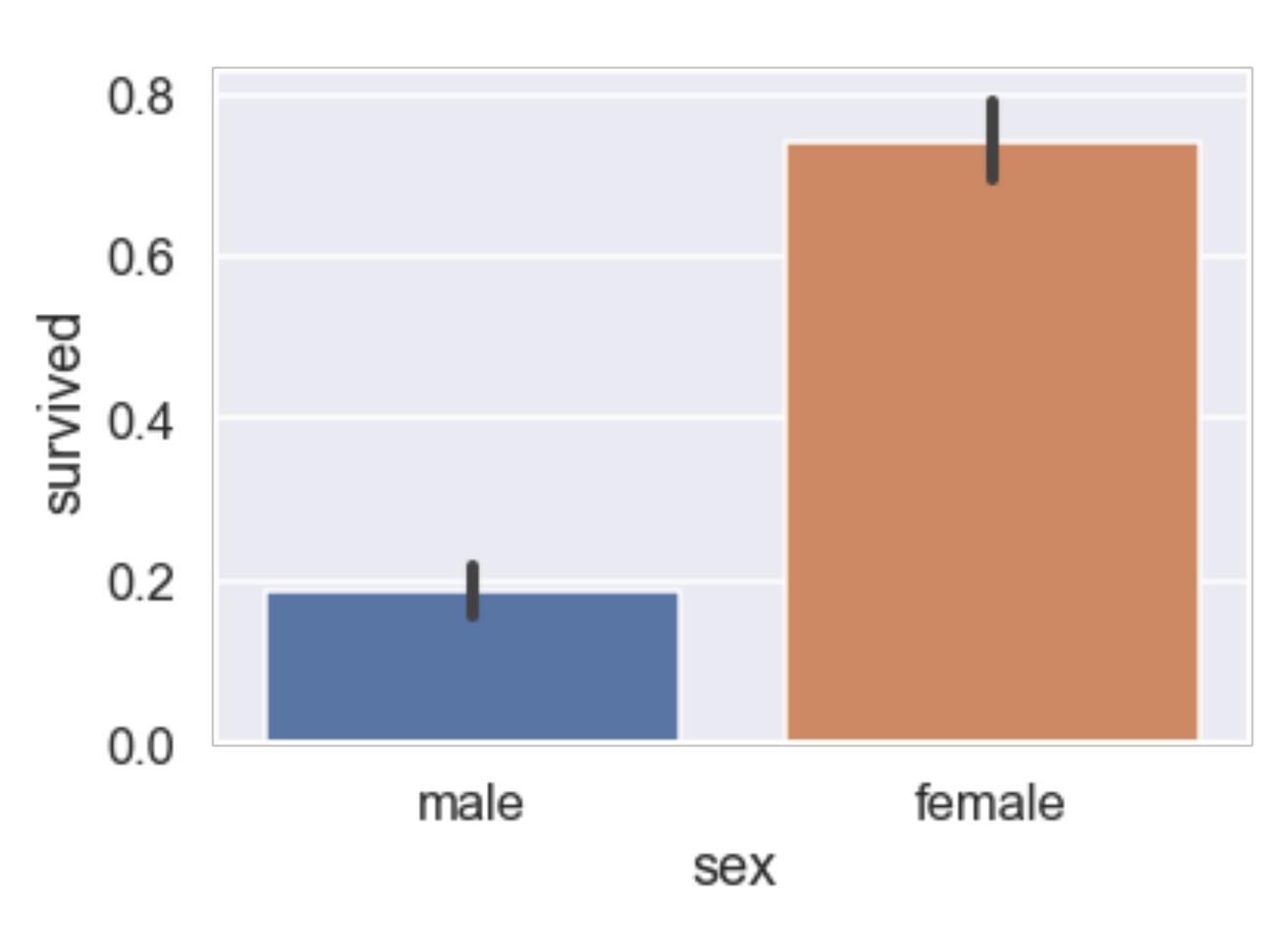
### seaborn

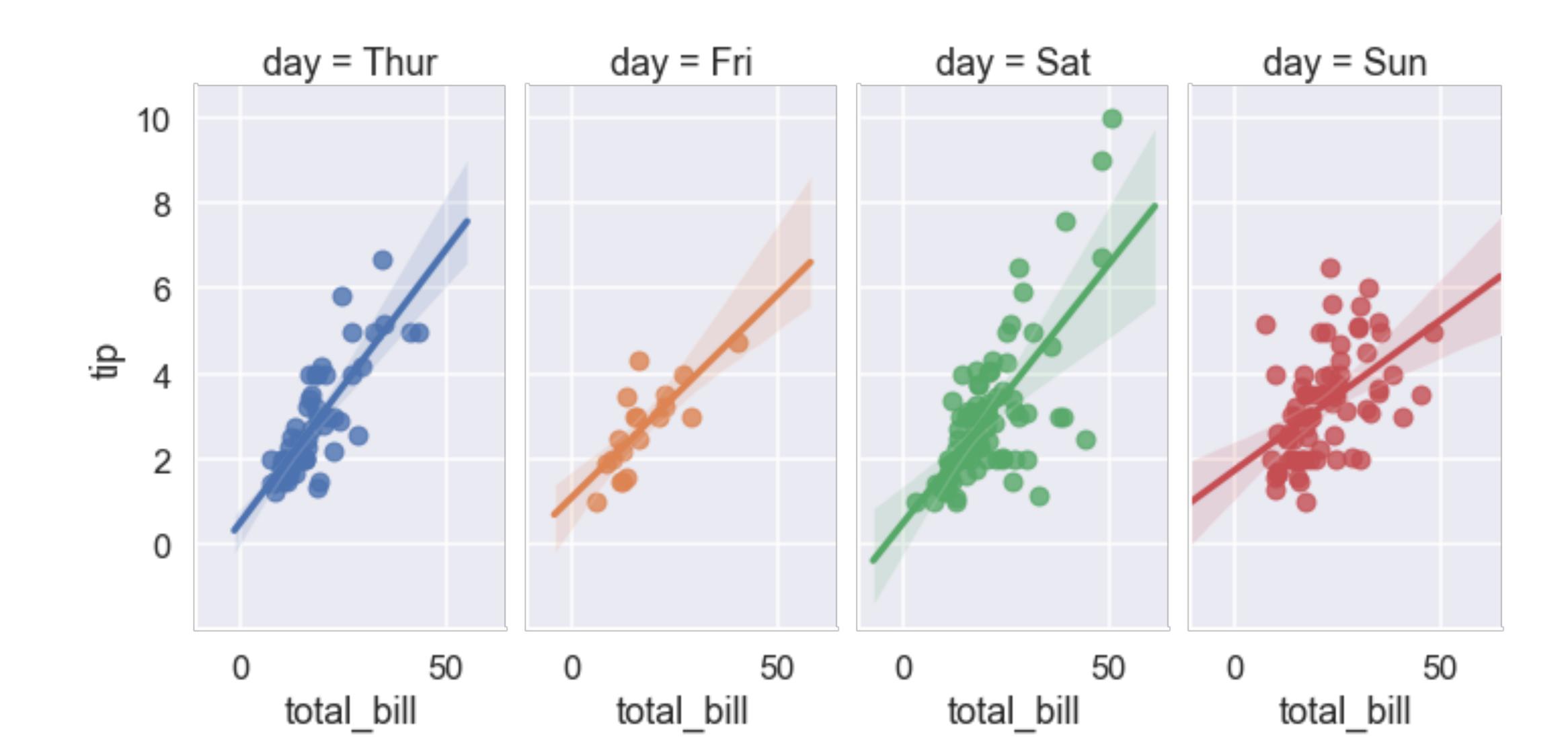
- Makes common statistical plots from tidy data.
- Typical usage:

```
sns.someplot(x='...', y='...', data=...)
```

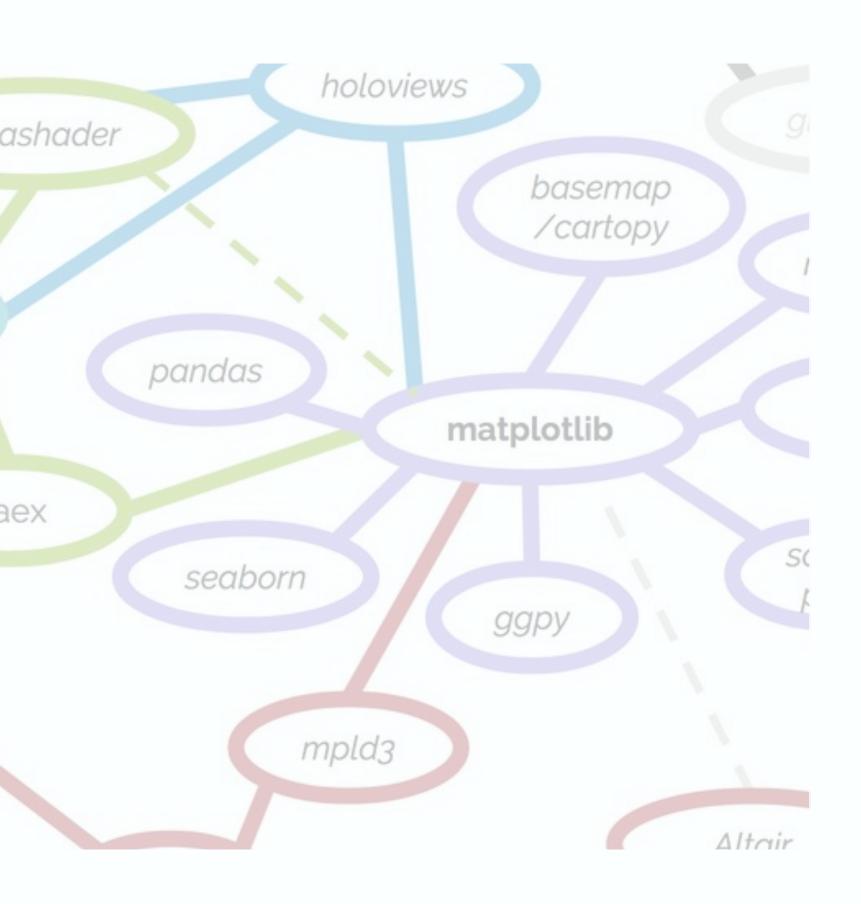
#### sns.barplot(x='sex', y='survived', data=ti)

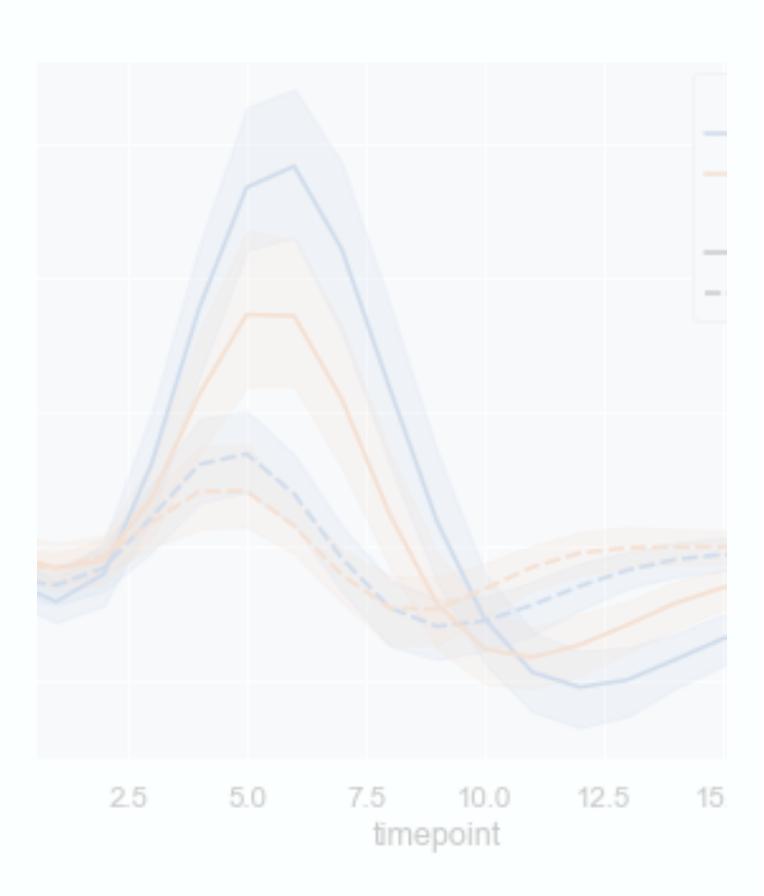
	survived	class	sex	age	fare
0	0	Third	male	22.0	7.25
1	1	First	female	38.0	71.28
2	1	Third	female	26.0	7.92
•••					
888	0	Third	female	NaN	23.45
889	1	First	male	26.0	30.00
890	0	Third	male	32.0	7.75



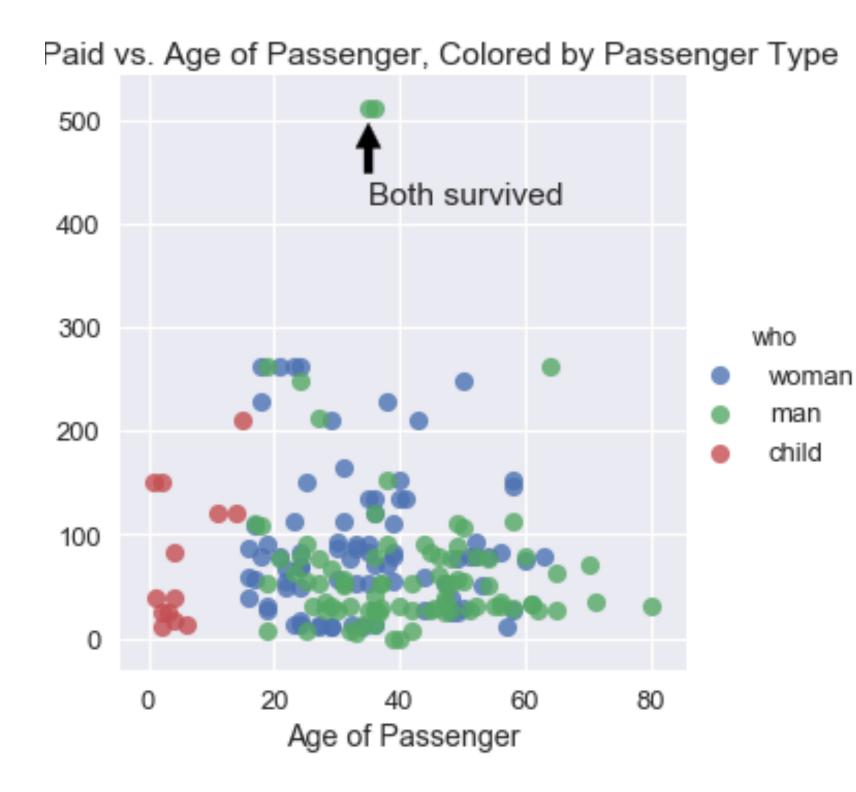


#### Using seaborn





## Fine-tuning using matplotlib



(demo)