

Data Visualization in Python using seaborn and matplotlib

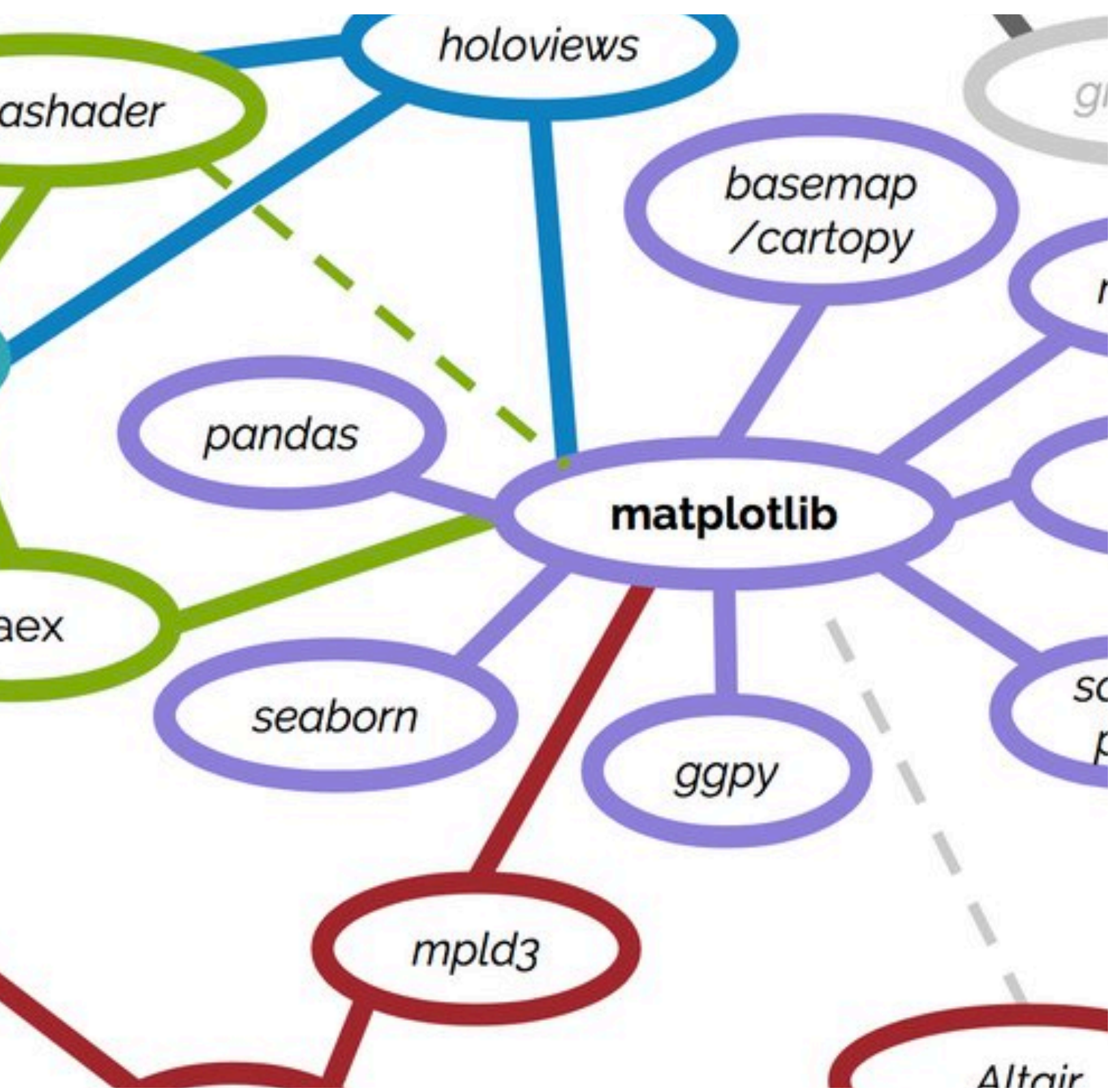
Learning goals:

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

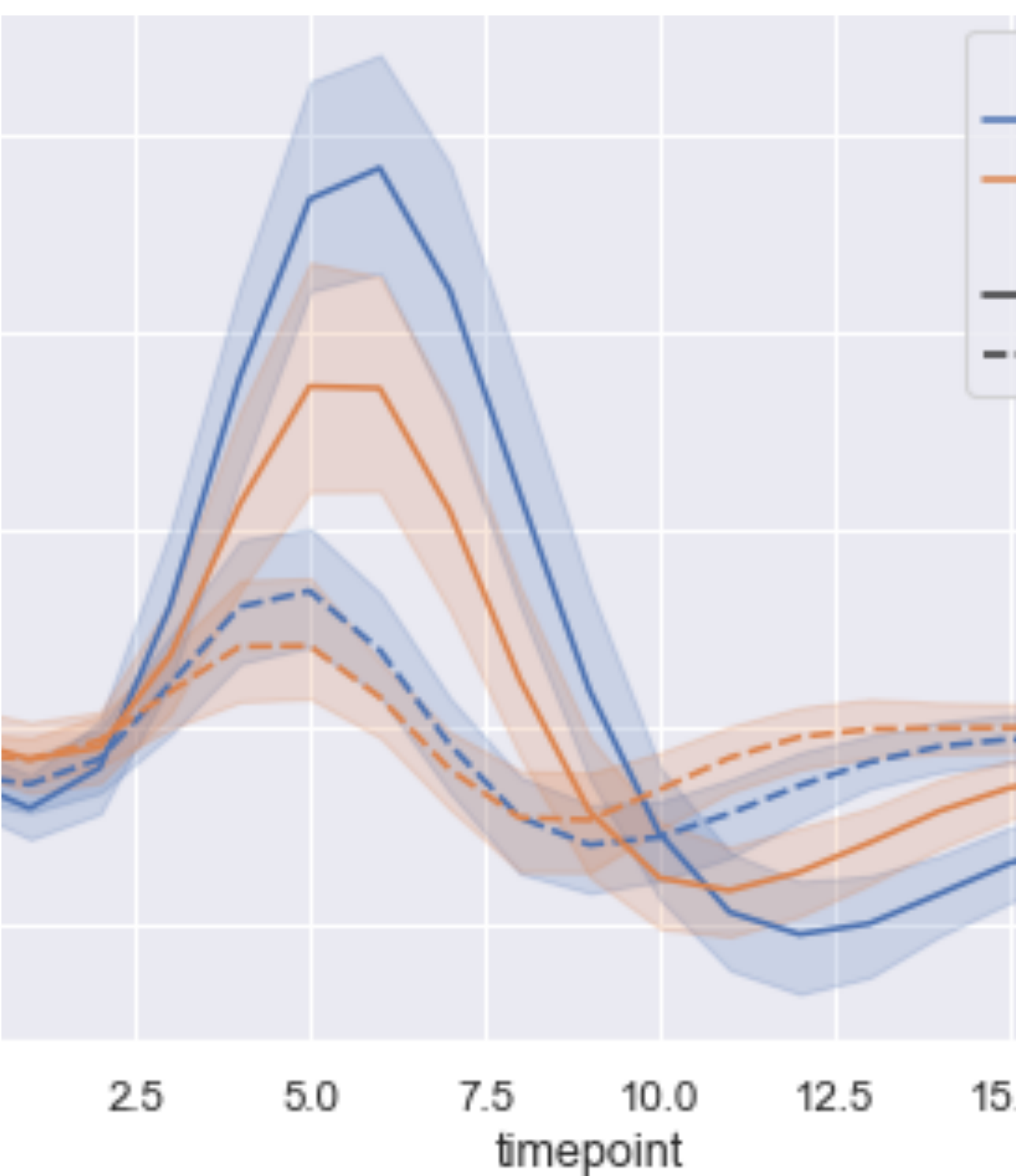
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Python Workshop Winter 2020
March 3, 2020
OH: Fri 11a-12p in SSRB 100

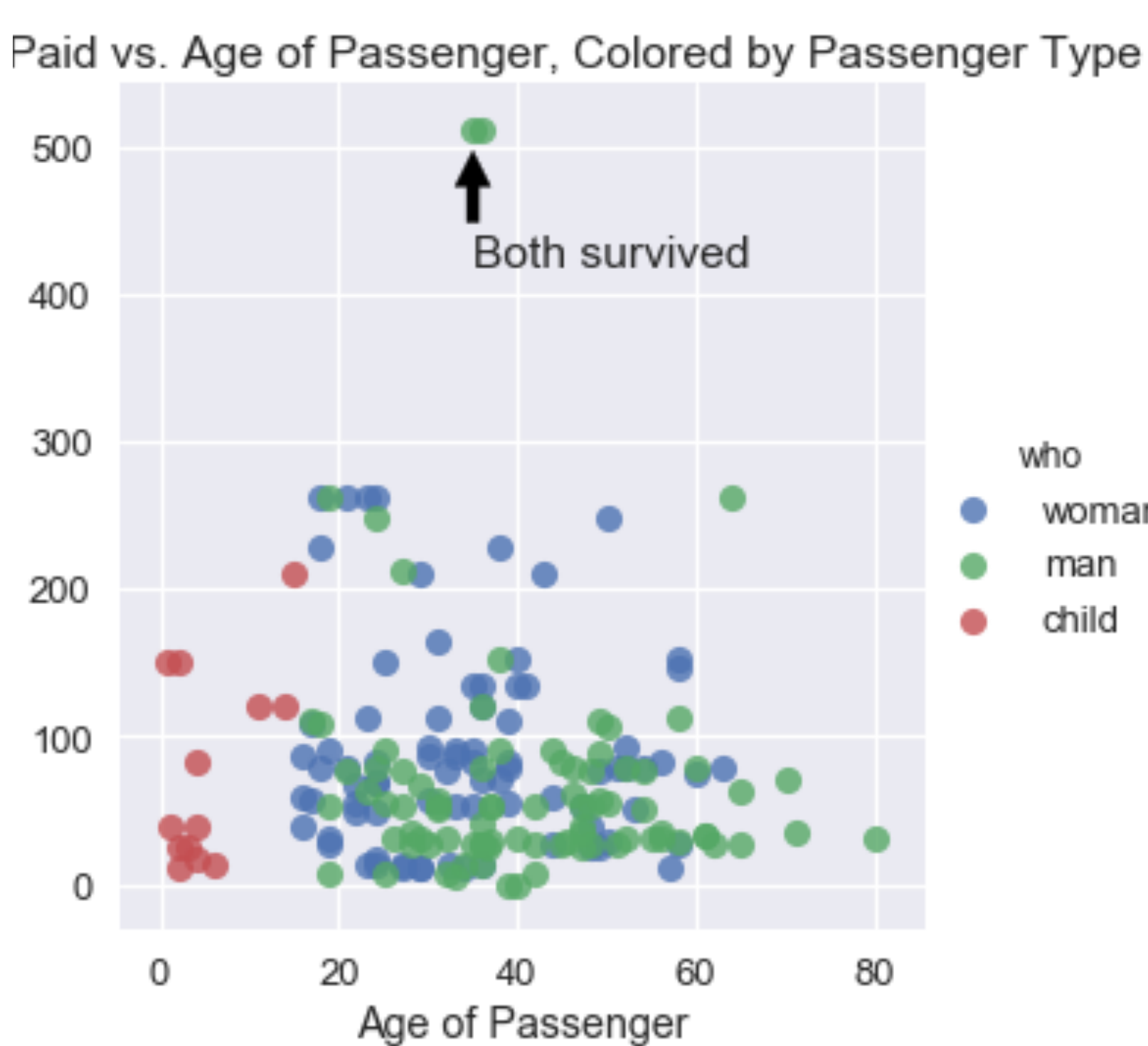
Data Viz Landscape



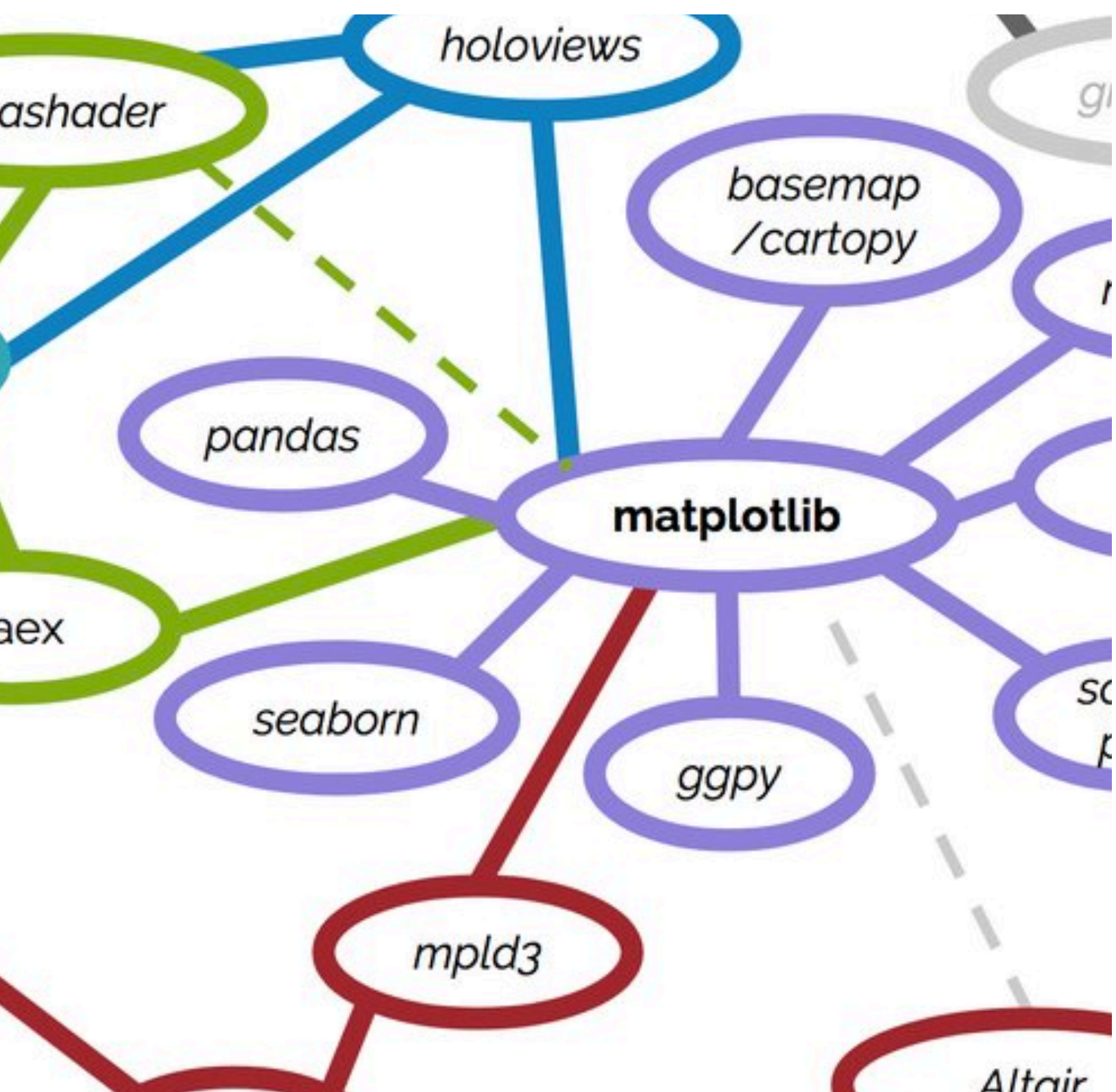
Using seaborn



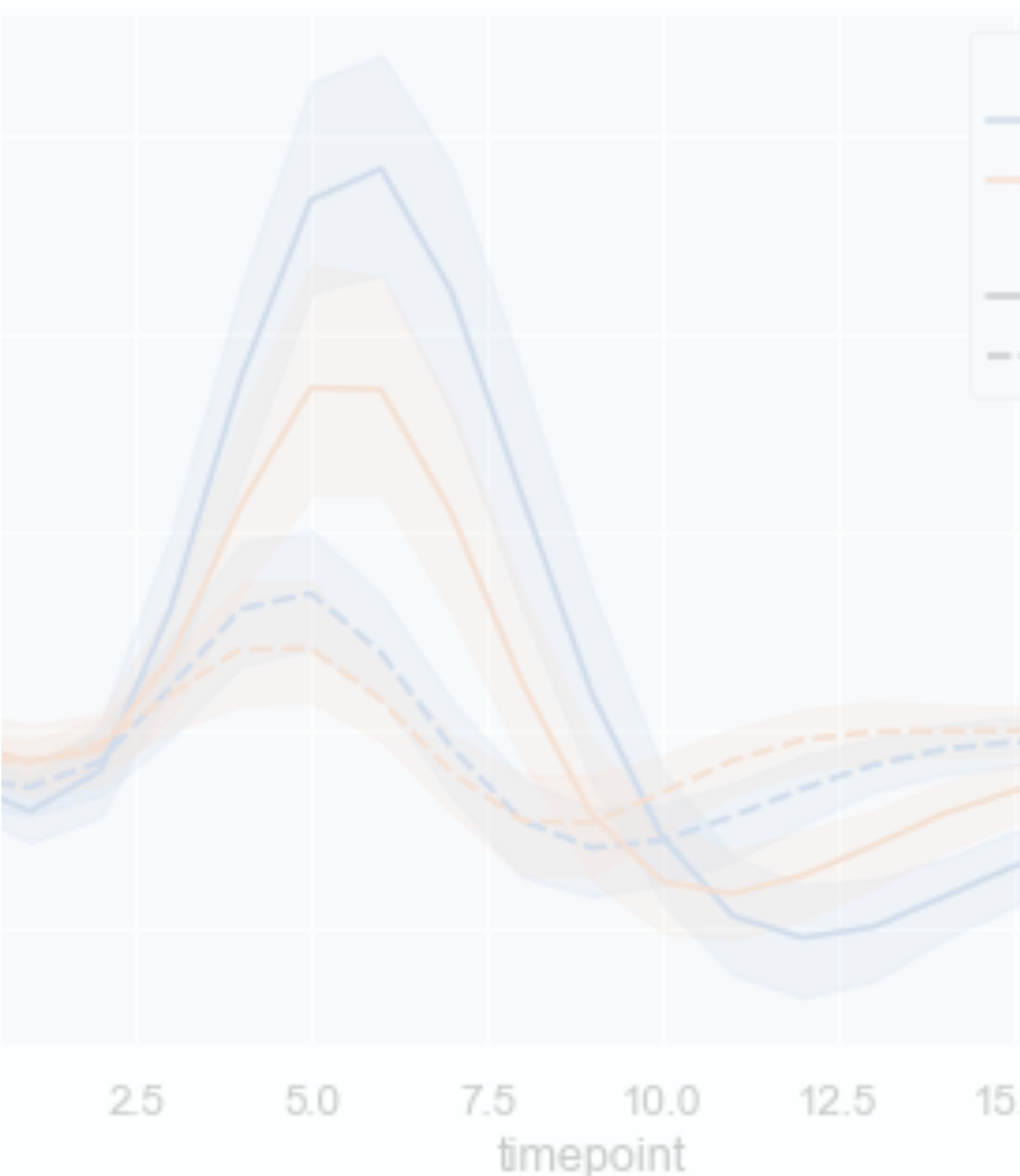
Fine-tuning using matplotlib



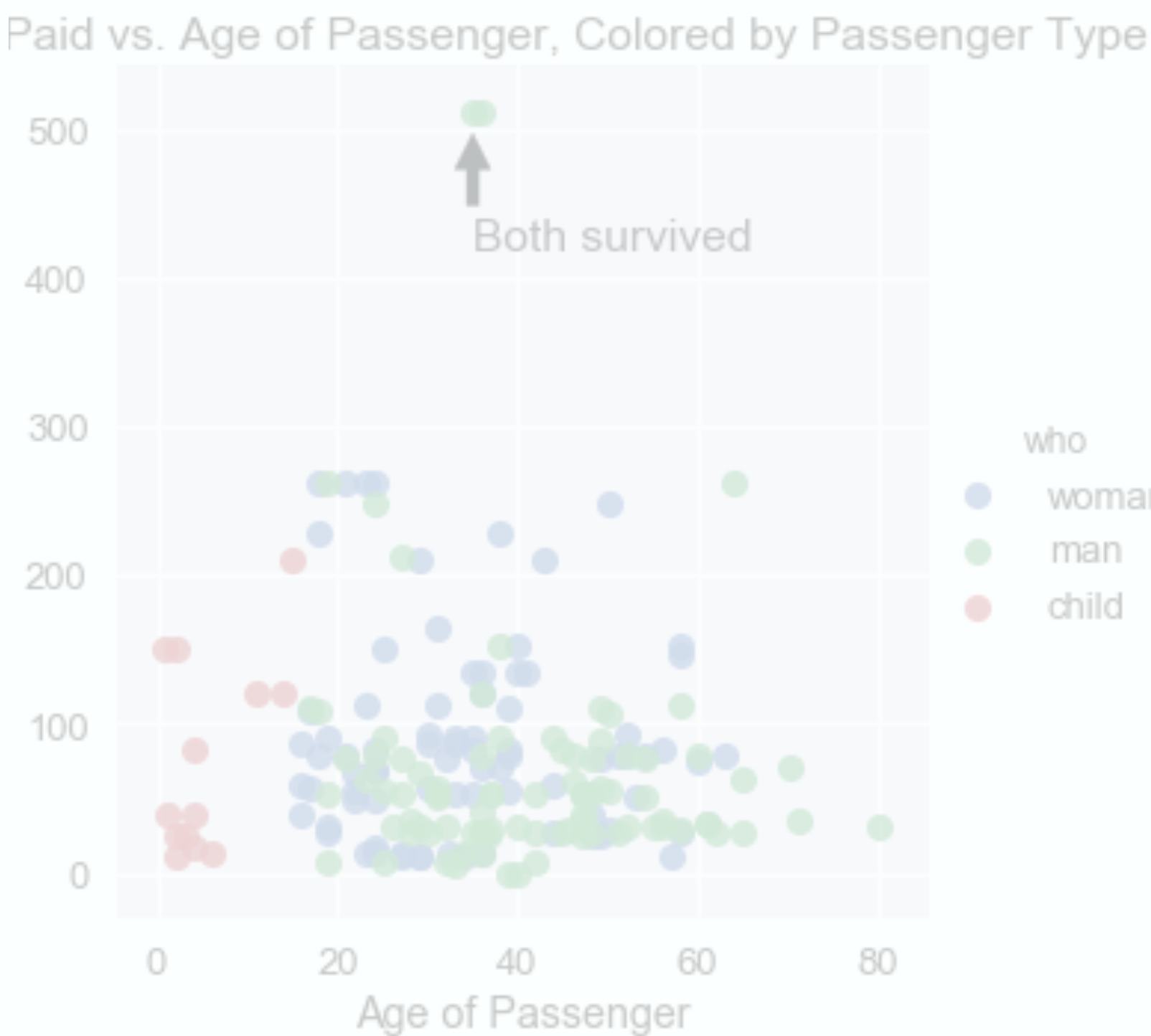
Data Viz Landscape



Using seaborn

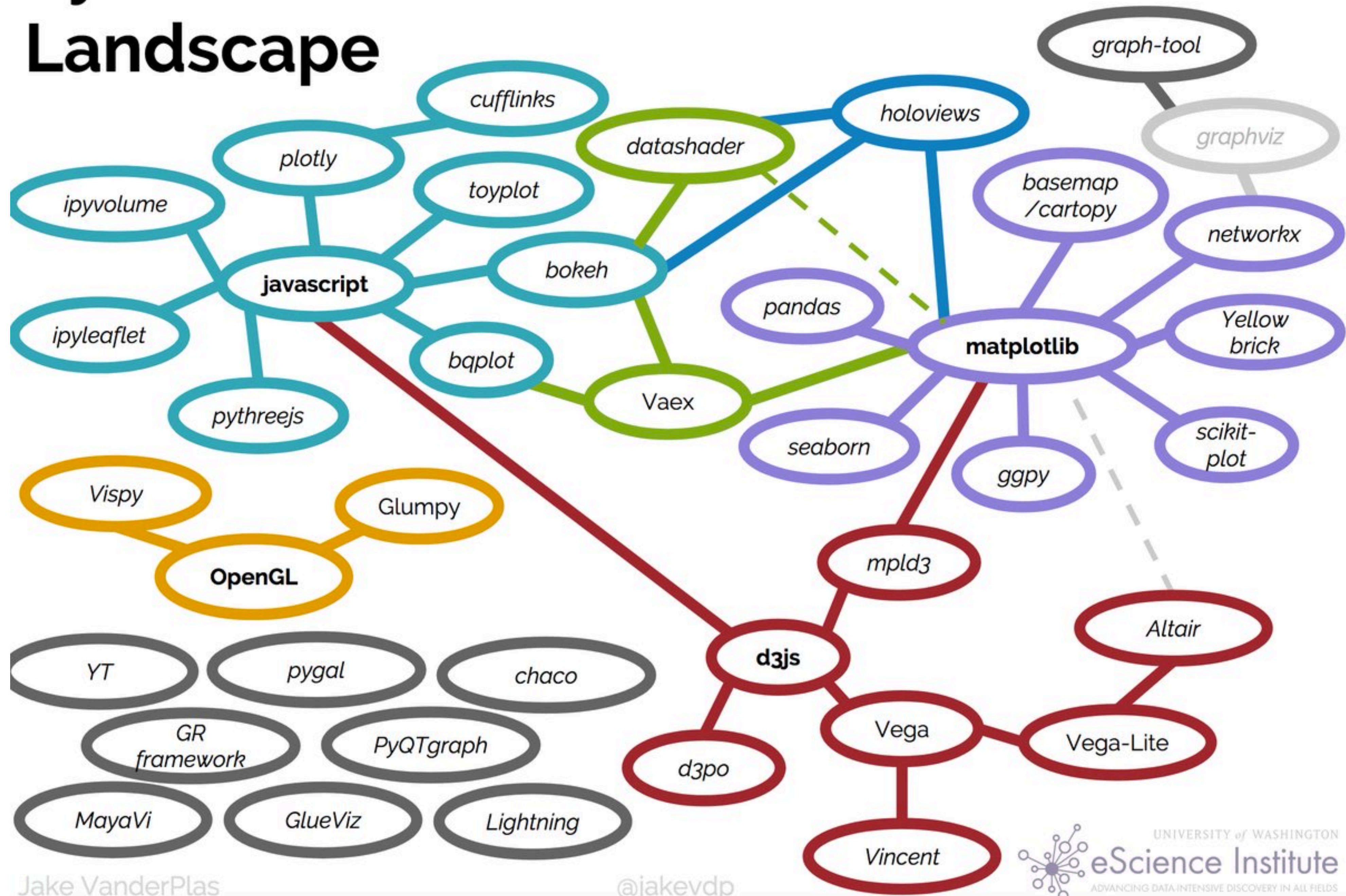


Fine-tuning using matplotlib

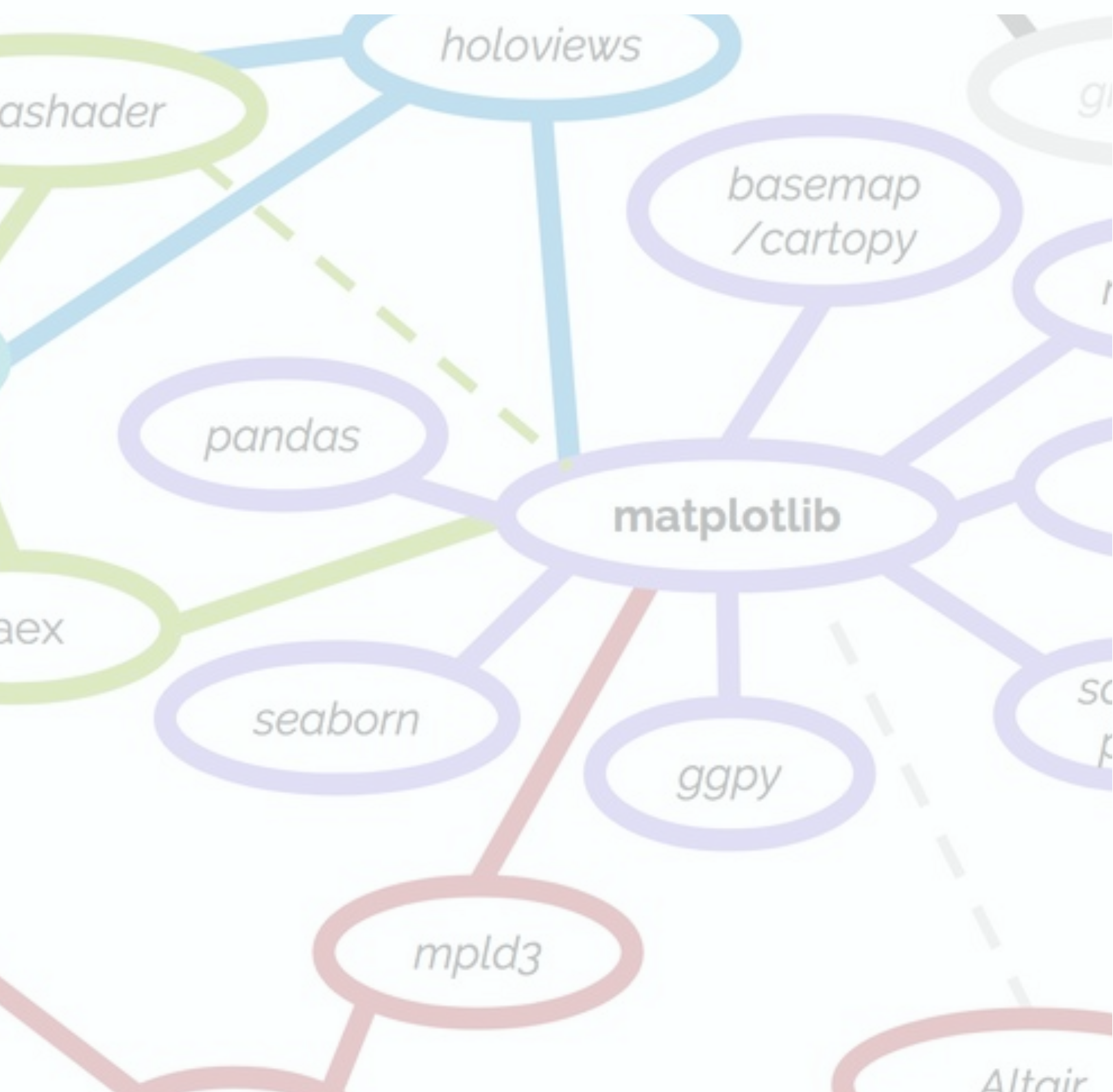


Landscape

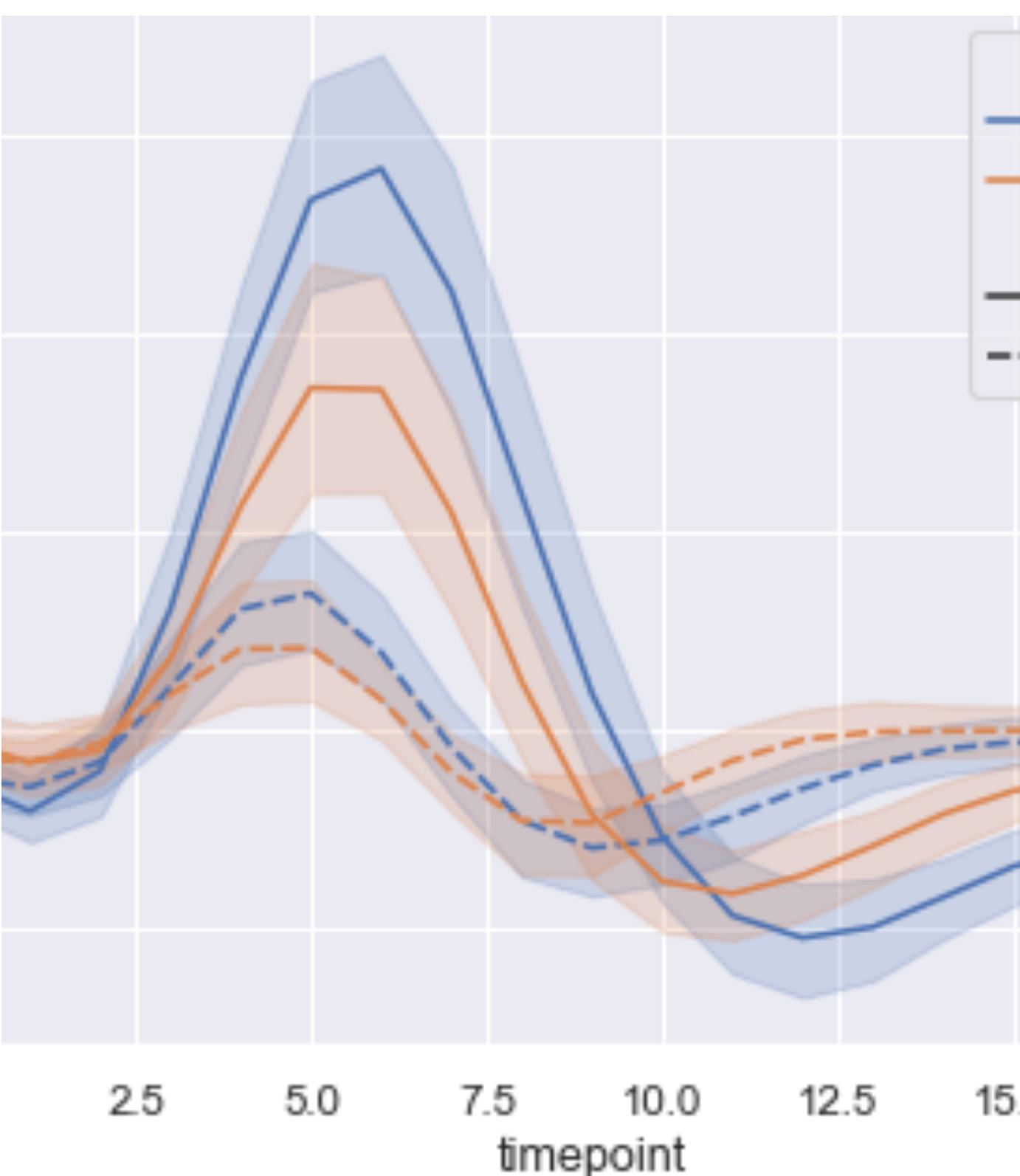
Python's Visualization Landscape



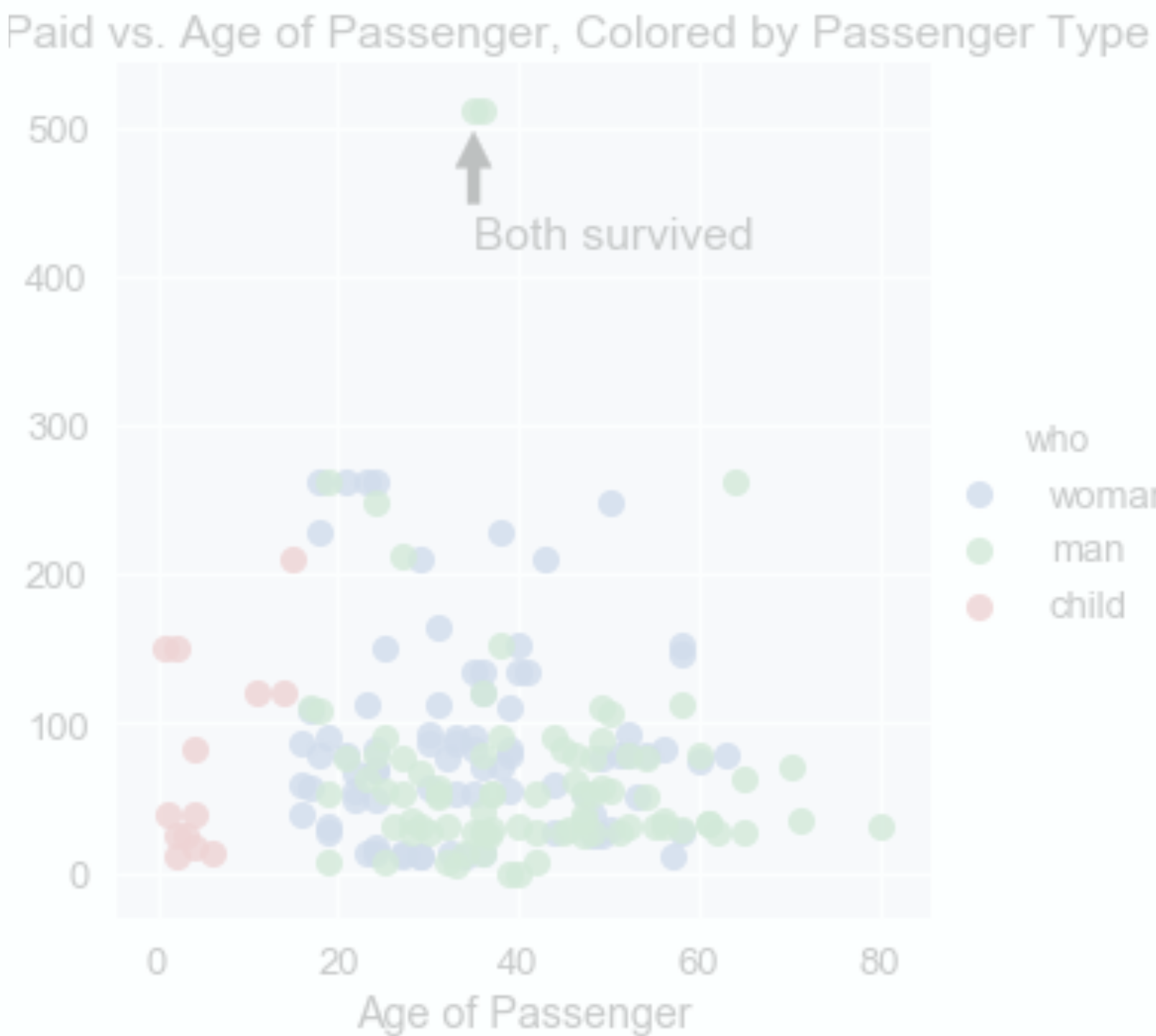
Data Viz Landscape



Using seaborn



Fine-tuning using matplotlib



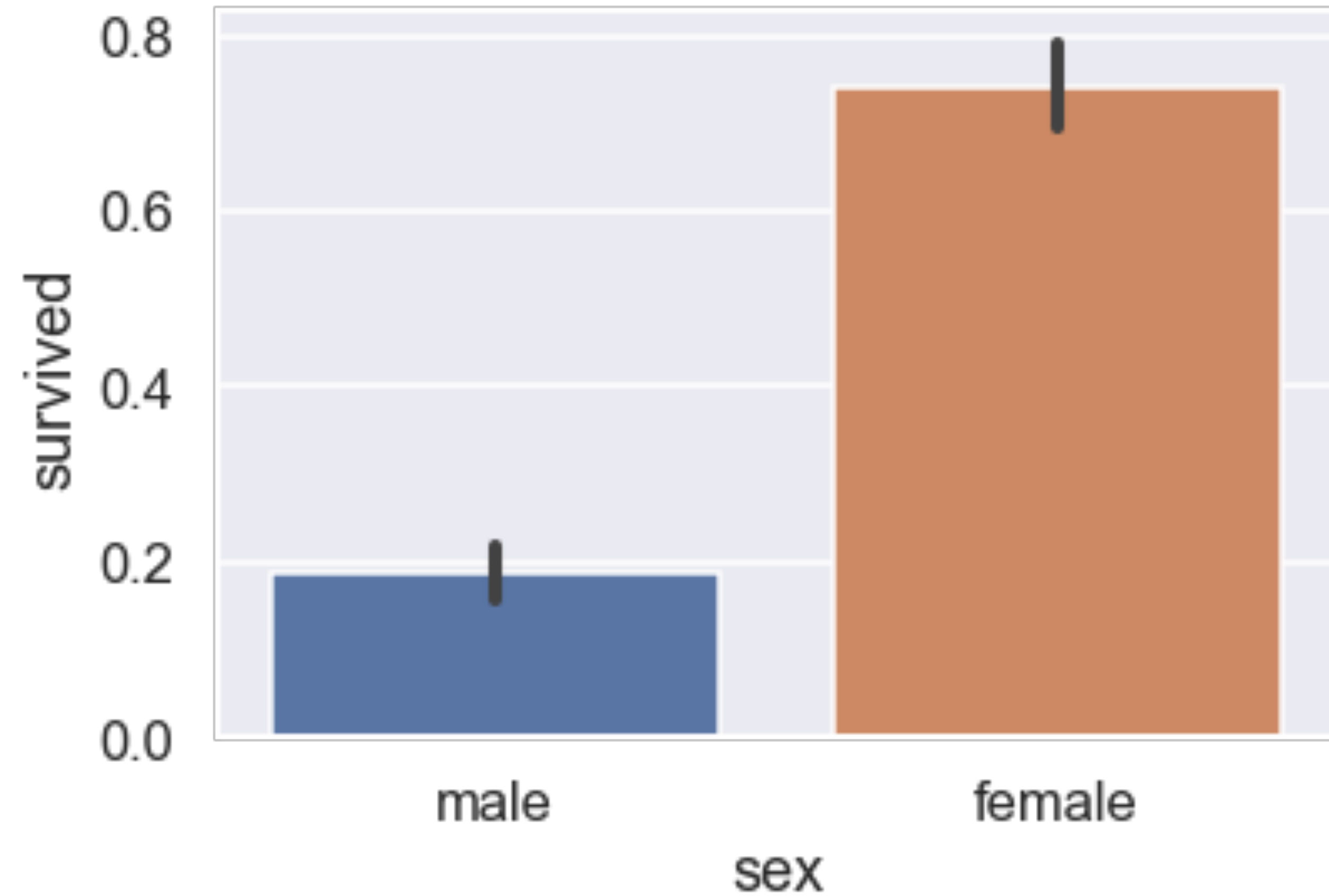
seaborn

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

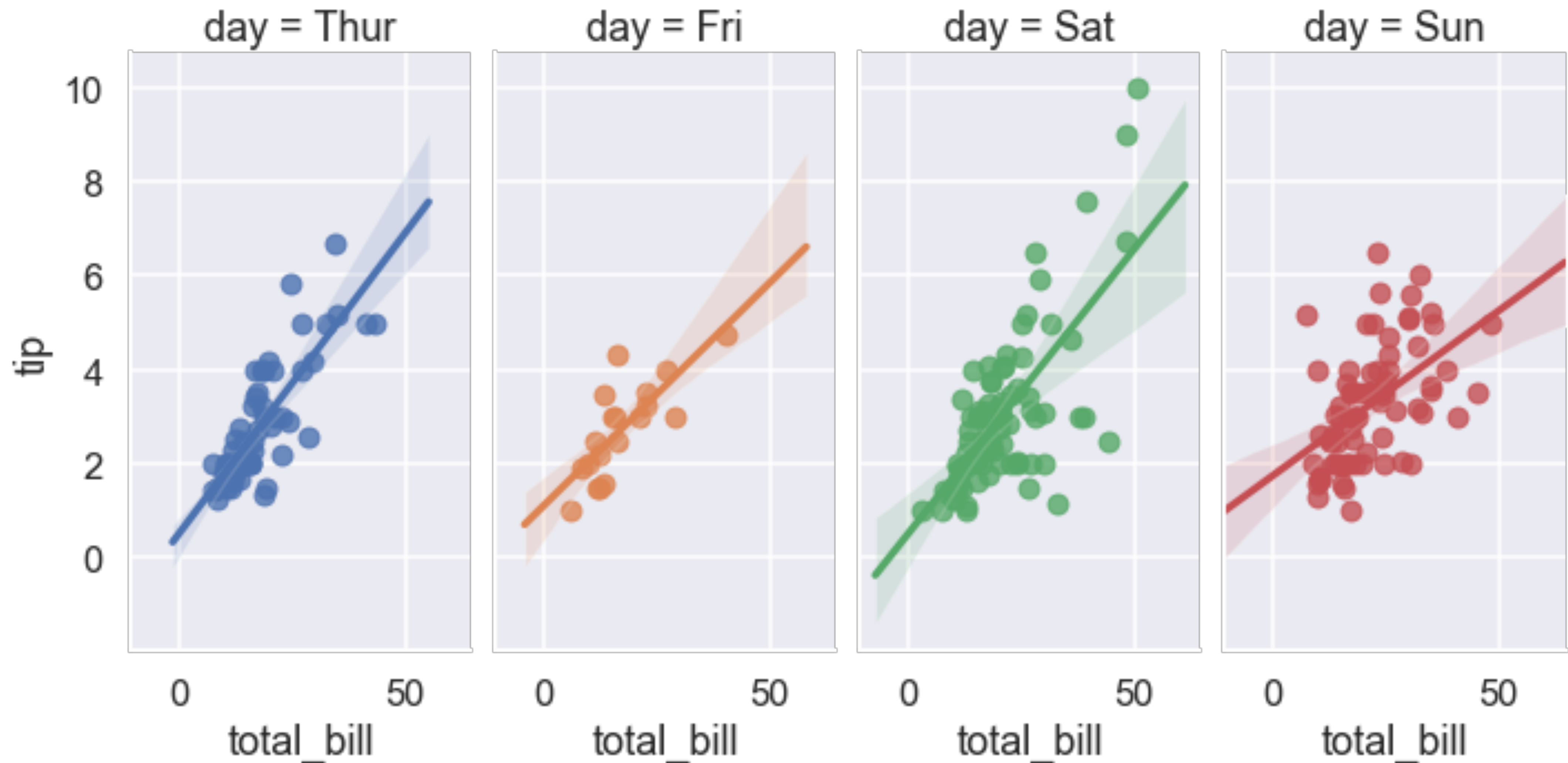
```
sns.someplot(x='...', y='...', data=...)
```

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

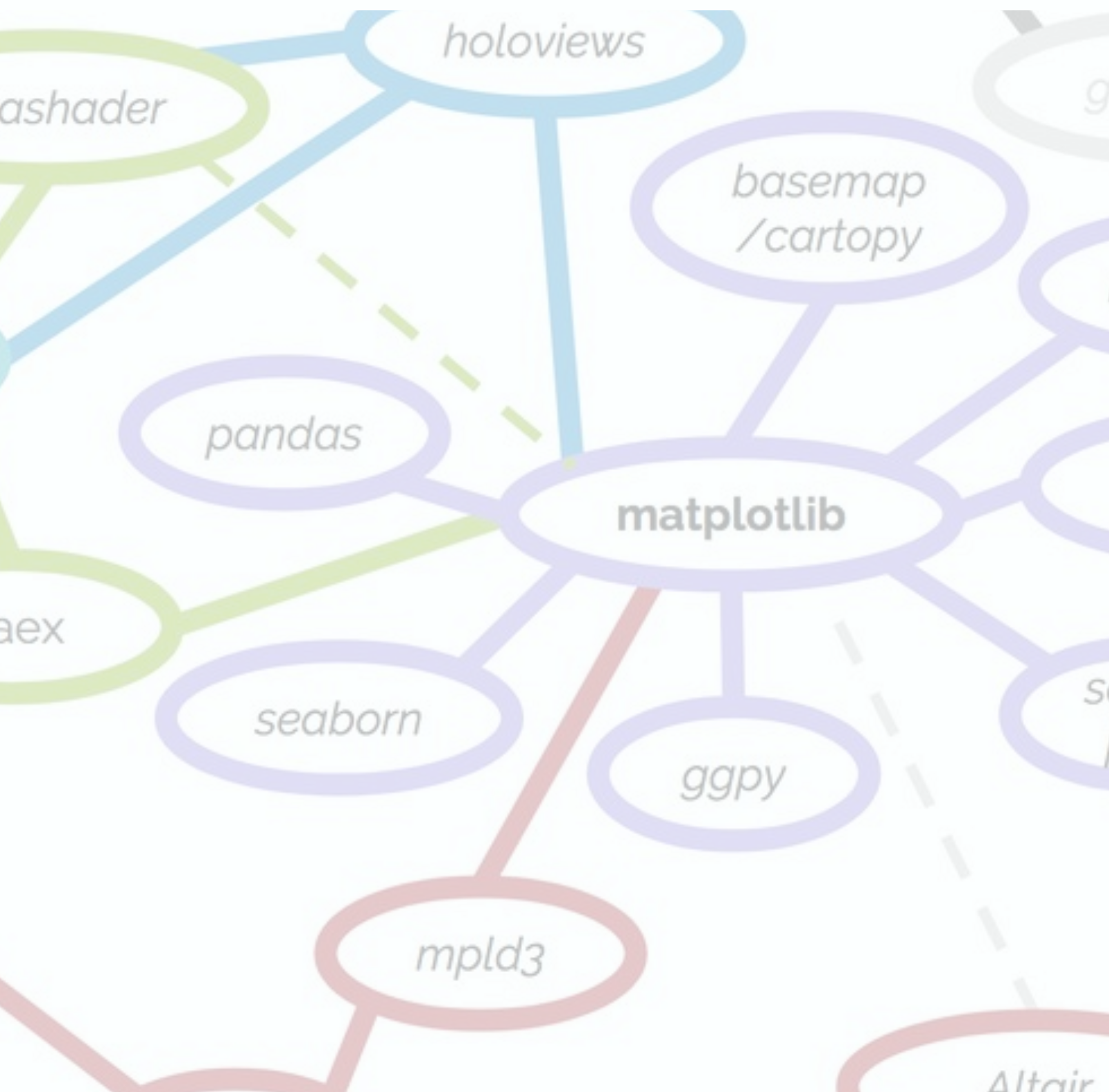
	survived	class	sex	age	fare
0	0	Third	male	22.0	7.25
1	1	First	female	38.0	71.28
2	1	Third	female	26.0	7.92
...
888	0	Third	female	NaN	23.45
889	1	First	male	26.0	30.00
890	0	Third	male	32.0	7.75



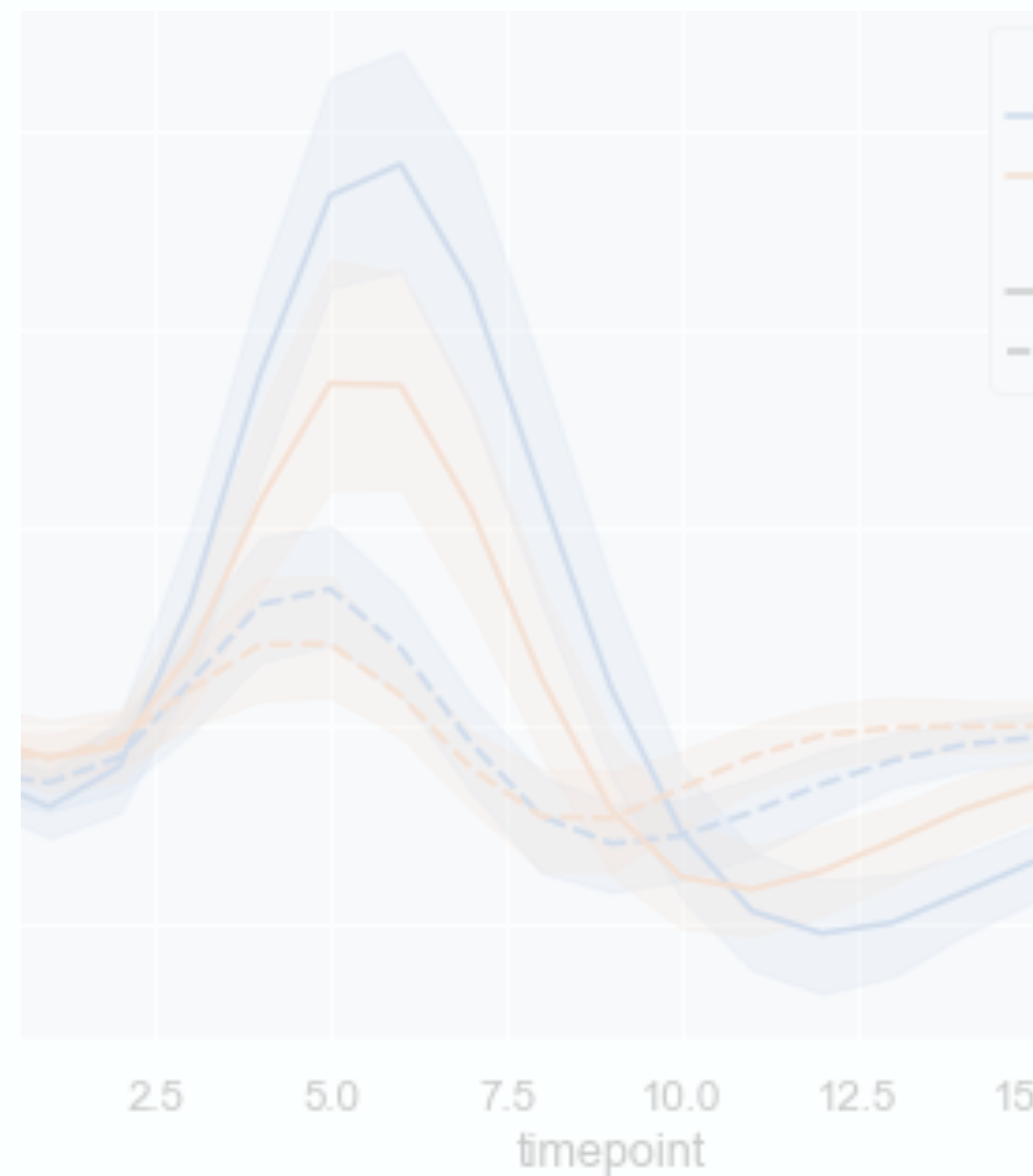

```
sns.lmplot(x="total_bill", y="tip",  
           col="day", hue="day", data=tips)
```



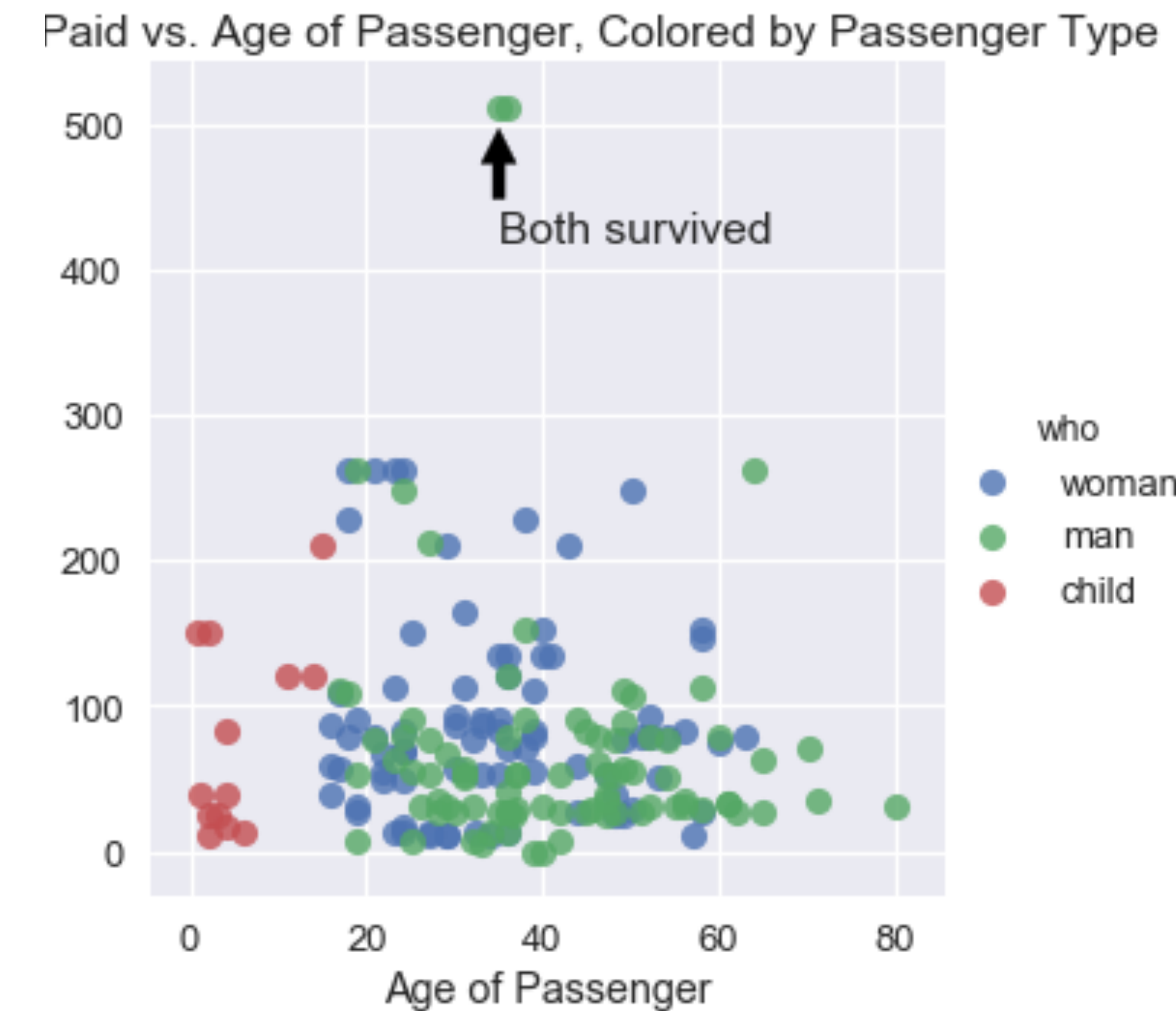
Data Viz Landscape



Using seaborn



Fine-tuning using matplotlib



(demo)