

LECTURE 29

MATPLOTLIB II

MCS 275 Spring 2022

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LECTURE 29: MATPLOTLIB II

Course bulletins:

- **Project 3** due today at 6pm.
- Next big topic is **databases**
- Sprint break next week, no classes or office hours

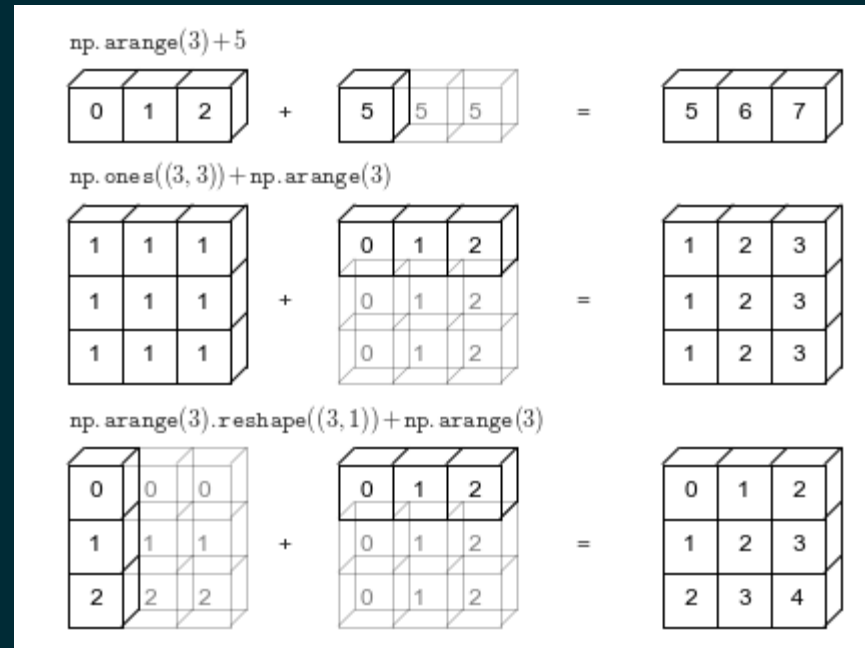
- Week after spring break:
 - Mon 28 Mar - no class, watch async Lecture 30 (SQLite I)
 - Wed 30 Mar - Guest lecturer Johnny Joyce: Crash Course on Machine Learning
 - Fri 1 Apr - no class, watch async Lecture 32 (SQLite II)
- I won't hold office hours 28 Mar - 1 Apr
- Mon 4 Apr - next time you see me in person

GALLERY

The matplotlib home page has a nice [gallery of examples with source code](#). It can be especially helpful if you know what you want something to look like, but don't know what it is called.

BROADCASTING

This figure from §2.5 of [Python Data Science Handbook](#) by [Jake VanderPlas](#) was made with Matplotlib!



And the book contains the [source code](#)!

→ Matplotlib intro notebook ←

MAIN PLOTTING COMMANDS

- **plt.plot(xvals,yvals,...)** — plot line, points, or both
- **plt.scatter(xvals,yvals,...)** — plot points with individual size/color control
- **plt.contour(xgrid,ygrid,zgrid)** — contour (topographical) map of function of (x,y)
- **plt.imshow(zgrid,extent=[...],origin="lower")** — density plot of a grid of values

Most other commands adjust or annotate plots made with these commands.

REFERENCES

- *Python Data Science Handbook* by Jake VanderPlas
 - Chapter 2: Numpy
 - Chapter 4: Matplotlib
- [matplotlib home page](#), including [documentation](#).

REVISION HISTORY

- 2022-03-18 Initial publication



Have a great spring break!

