Jupyter Notebook Tutorial

Jupyter Notebook is a server-client app that allows you to edit and run your notebooks via web browser (Firefox or Chrome works best). Notebooks (.ipynb files) are documents that contain both code and rich text elements like paragraphs. Because of this ability to present both code and text, Jupyter Notebook is really useful in being able to a) have human-readable analysis description and results b) perform data analysis in real time. To learn more about Jupyter Notebooks, check out this link! We will be using Jupyter Notebook for all our labs in this course -- and we want you to run the lab code in-line via the specific lab notebook of that week. We recommend using the department machines or SSHing for the labs, but if you want to do the labs on your personal machines, be sure to download Jupyter Notebook! You can find instructions on how to do that here.

To run a notebook after installing: ipython notebook <name of notebook>

The best advice for learning how to use jupyter notebooks is to play around with them on your own, and test writing code in-line and documenting that code via markdown text. If you really want to learn more about notebooks, this is a really informative tutorial provided by Data Camp. The TAs have compiled a list of helpful tips:

- 1. On a department machine, use chromium instead of chrome so you don't crash your cache.
- 2. You can run each cell by clicking the run button on the top of the page or by using a keyboard shortcut (Shift +Enter).
- 3. When entire blocks of code are crashing, use the split_cell function (Edit → Split Cell) to split the code into smaller subsets (cells), and run each cell separately. This helps the debugging process.
- 4. If you want keyboard shortcuts, go to Help -> Keyboard Shortcuts, for a full list.

If you are having issues with Jupyter Notebook or have questions about it, feel free to come to TA hours and ask!