

REQUIRED TOOLS

Before the course starts, you should *install* and *familiarize* yourself with the following technologies:

- [Anaconda](#) - We will be using Anaconda as our primary development environment.
- [Python 2.7](#) - This is installed by default on most Macs and also comes with Anaconda.
- [Github](#) - We'll be using Github on a daily basis to store and share our code.
- [Git](#) - Mac users should also install the command line tools for Git.

COMMON TOOLS

- [Anaconda](#) bundles many of the Python packages we'll be using, including:
 - *Python 2.7*: One language to rule them all...
 - *Ipython / Jupyter / Pandas*: Core tools for creating notebooks.
 - *Matplotlib*: The king of all python plotting packages.
 - *Gensim*: Framework for vector modeling.
 - *NLTK & Spacy*: Used for natural language processing.
 - *NumPy*: Array processing tool.
 - *Scikit-learn*: Modules for machine learning & data modeling.
 - *SciPy*: Scientific library for python.
 - *Seaborn*: Statistical data visualizer.
 - *Pip & Setuptools*: package installer & version manager (Mac only).
 - *Sqlite*: Standalone, lightweight SQL database engine.
 - *Statsmodels*: Simple statistical computation (used with SciPy).

OPTIONAL TOOLS

These tools aren't required, but many students have found them helpful!

- [Atom](#) or [Sublime](#): Popular text editors for writing code.
- [Import.io](#): a useful web scraping tool with a graphic interface.
- [Plot.ly](#): a user-friendly tool for plotting graphs.

*A NOTE ABOUT TECHNOLOGY

While you can be a data scientist with *any* machine, unfortunately, there are a number of compatibility issues with Python libraries and older versions of Windows. For instance, Python and Anaconda have some known issues with *Windows 7 x64* machines.

In addition, most of our instructors will be using UNIX-based commands and *may not be able to troubleshoot* PC-specific issues. Therefore, we recommend that our PC users install a Virtual Machine like [Oracle's Virtualbox](#) and run a Linux environment like [Ubuntu Desktop](#).

Finally, **both** Mac & PC/Linux users should make sure their machines are running with administrator permissions and have at least 4-8gb of disk space free.