**Installing and Updating Python for Beginners**

**Note**: all instructions are for **MacOS only**

Before installing Python, you can check if Python is already installed by opening a Terminal window and entering  
  
$ python3 --version

If Python is already installed on your system, this command will return a version number such as Python 3.4.9. However, if Python is not installed on your system, it will return the message python3: command not found.

If Python is not already installed, you can either install Python via a GUI installer or via homebrew. If you are not familiar or comfortable with command line interface, you may want to use the GUI installer. That said, installing homebrew and using it to install Python is a simple and easy process.

**To Install Python via Homebrew**:

In your terminal window, enter the following command in order to install homebrew. You may be prompted for your system password.

$ /bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install.sh)"

Update homebrew with the following command.

$ brew update && brew upgrade

Now that homebrew is installed and upgraded, install Python with the command:

$ brew install python3

The Python website recommends testing the installation with the command pip3. This should bring up pip (Python’s package manager) help text. If it returns an error, retry the previous installation steps.

**To Install Python via the Python GUI**:

Open [Python.org’s download page for MacOS](https://www.python.org/downloads/mac-osx/), click the link for the Latest Python 3 Release, scroll down and click the MacOS 64-bit installer. Double click the Python file in your Download folder. The GUI will open and walk you through the steps to installing Python.

**To Update Python**:

You can update Python with the Python GUI by going through the same processes as the GUI-based installation above. Your old version of Python will be detected and upgrade via this method.

To update Python with homebrew, run brew update (to update homebrew itself) and then brew upgrade python3.

**To Install Python Packages**:

You may need additional packages in Python for certain processes to work, such as pandas or numpy. In order to install these packages, you can use the command pip install package-name.