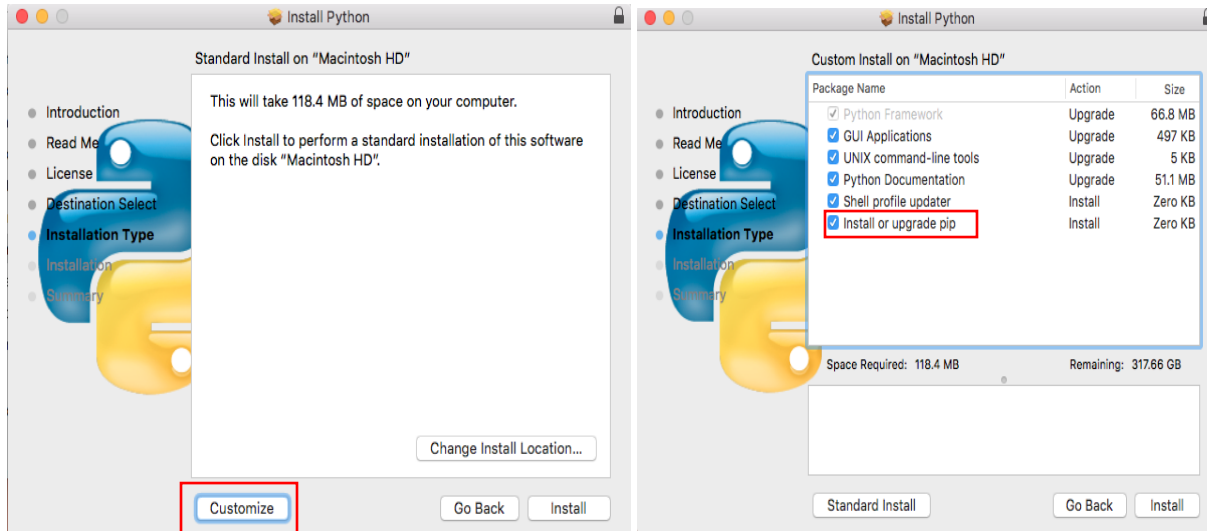


DOWNLOADING PYTHON:

From <https://www.python.org/> go to downloads and download the python version for your OS

ENSURING DURING DOWNLOAD THAT PIP IS PRESENT:

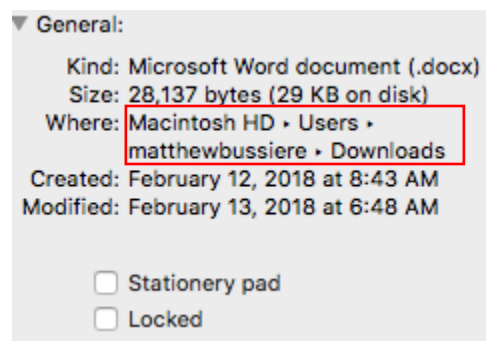


1. At the installation type press the Customize button
2. Check to make sure "Install or upgrade pip" is checked

CHECK FOR PIP INSTALLATION:

1. Click on the Finder
2. Go to applications
3. Open utilities
4. Click Terminal

Once in the terminal follow these sets of instructions:

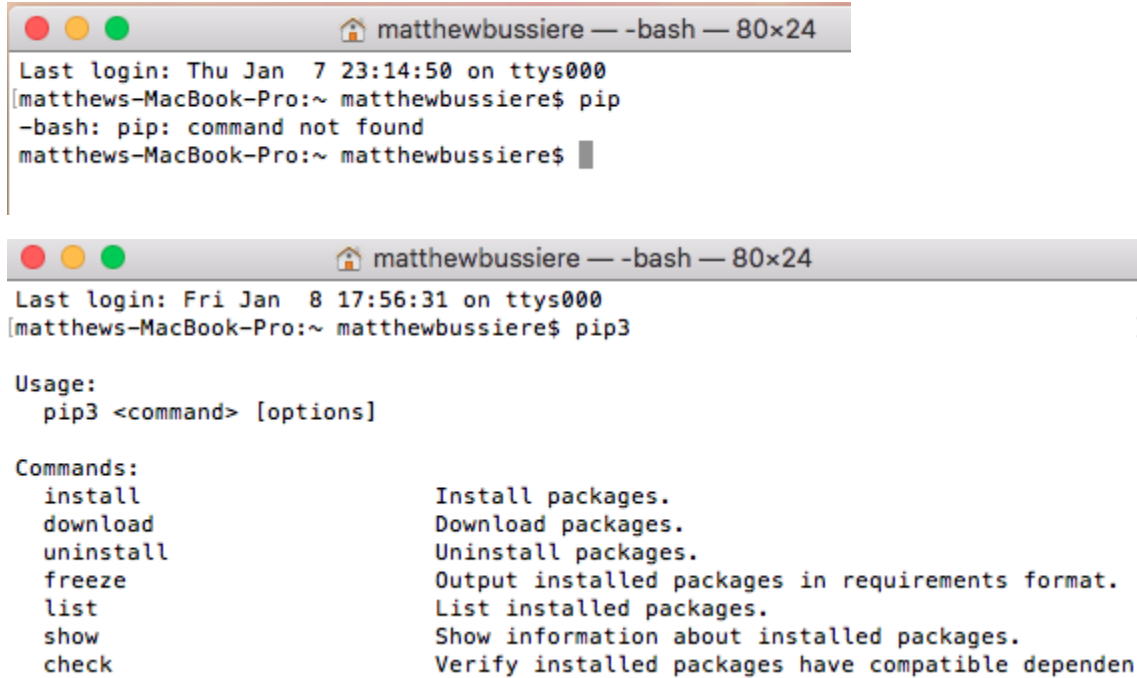


1. Type: `cd -`
2. Right click the app within the application folder -> click get info-> highlight the Where line(only the boxed in section) as shown above and copy.
3. In the terminal window, type: `cd [paste]`

Paste is pasting the copied where location, this will take you to the correct directory for the app.

CHECKING FOR PIP:

Once here check for pip or pip3 as shown in the pictures below.



The first screenshot shows a terminal window with the title 'matthewbussiere — -bash — 80x24'. The prompt is 'matthews-MacBook-Pro:~ matthewbussiere\$'. The user has typed 'pip' and the output is '-bash: pip: command not found'. The prompt is now 'matthews-MacBook-Pro:~ matthewbussiere\$'.

The second screenshot shows the same terminal window. The prompt is 'matthews-MacBook-Pro:~ matthewbussiere\$'. The user has typed 'pip3' and the output is:

```
Usage:
  pip3 <command> [options]

Commands:
  install          Install packages.
  download         Download packages.
  uninstall        Uninstall packages.
  freeze           Output installed packages in requirements format.
  list             List installed packages.
  show             Show information about installed packages.
  check            Verify installed packages have compatible dependen
```

When I typed pip it was unavailable, if this is the case use pip3 instead. Pip3 just means it will run pip as installed for python 3 so you could just do this anyway.

DOWNLOADING PACKAGES:

Once pip3 is confirmed within the correct directory, follow typing the below lines into the terminal.

1. pip3 install numpy
2. pip3 install scipy
3. pip3 install matplotlib

This will download the necessary libraries to run the application to your system make sure you are in the correct directory, if python/pip is not part of your environmental variables for whatever reason, you need to be in the directory of the file when installing the libraries for them to work.

RUNNING APPLICATION:

Once this installation is done from the command window type:

```
python3 KRD_App_Mac.py
```

This will run the application. The other option is to double click the application file and attempt to run it from the IDLE. This will work but creates the potential for deleting lines of code and may cause errors.

Give it time to run when running it from the terminal window.

TUTORIAL VIDEO:

<https://youtu.be/rWhEfzOntk4>