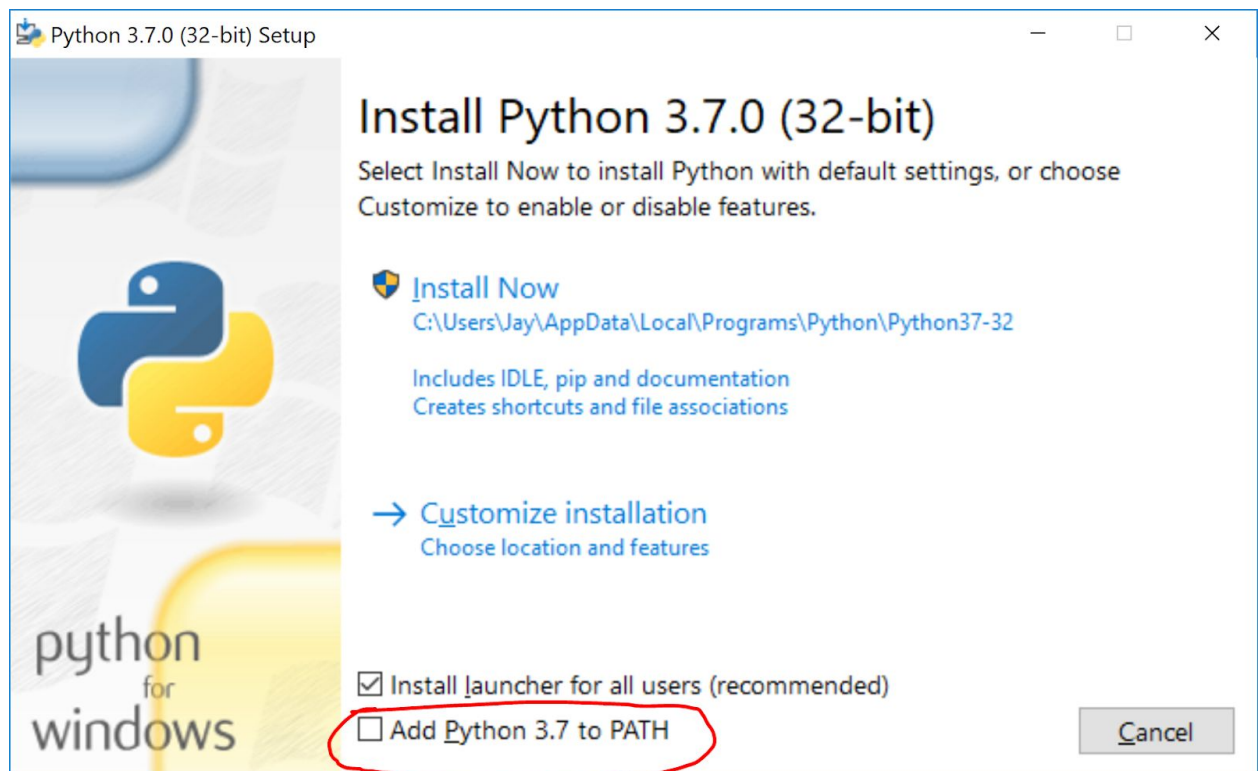


As I mentioned in class, I would provide a guide describing a single method of getting atom up and running on a windows machine. My machine runs the default configuration of Windows 10 basically shipped from the factory. It has had very few packages installed so if you've never installed python or atom before, this is what you will have to go through.

If you already managed to install python and atom on your own you are welcome to follow this guide <https://atom.io/packages/ide-python> which was used as a reference in the creation of this document. You will soon learn that there are always mistakes and outdated documentation floating around on the internet. This is especially true of things in computer science since we generally depend on others' work which is constantly up changing in our own work.

1. Get Python3 installed on your machine. Goto python.org and download the installer of the most recent version (3.7.0) for your operating system. Open the executable and you should see this window.



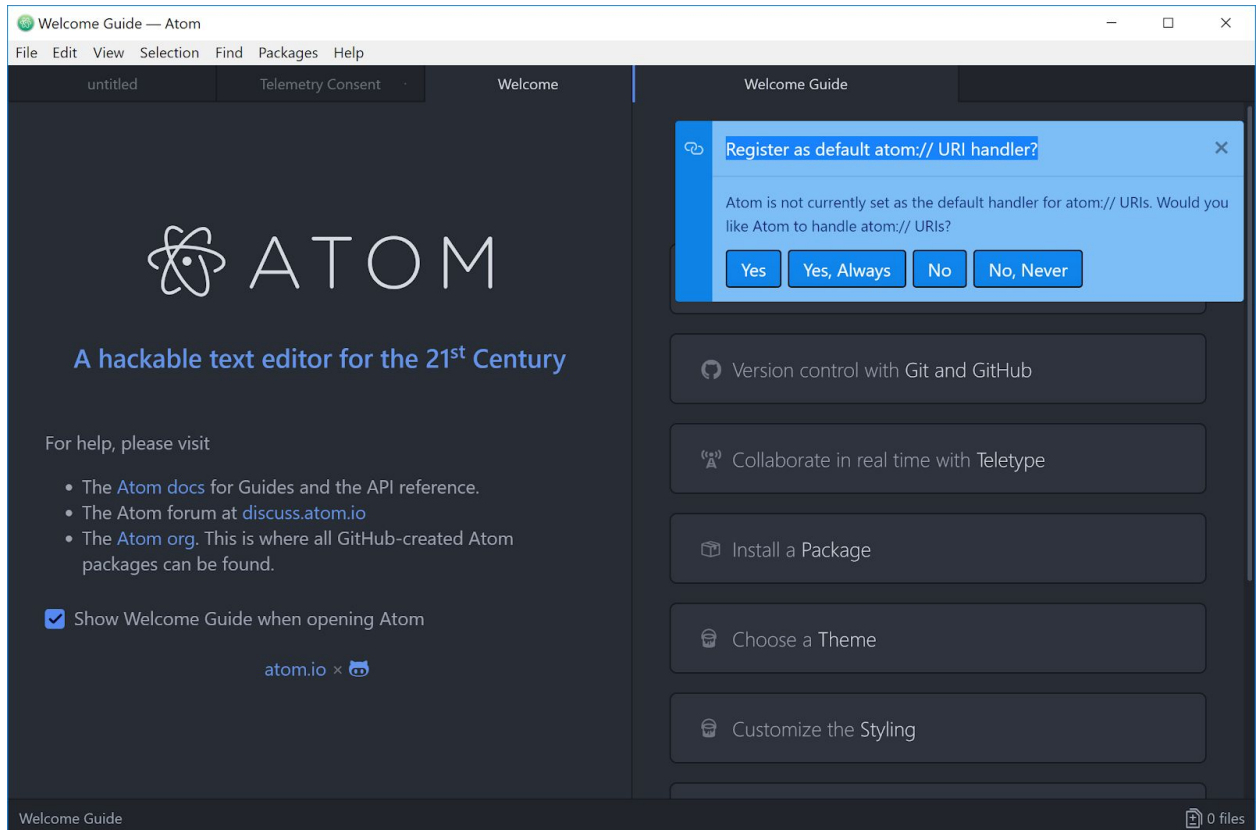
I've circled the "Add Python 3.7 to PATH." **YOU WILL NEED TO CLICK THIS OPTION.**

This allows us to run python scripts from the command line like I was talking about in class. If you did not click the checkbox for this option, you should be able to open the installer again and modify your installation (or add the path manually use an internet search to find out how). If you don't remember if you have python added to the path, we will be running something from the command line after step 7 of this guide.

2. I've clicked the Add Python 3.7 to PATH and hit Install Now which is the default installation. It provides the Python interpreter (what runs the python code), IDLE (a simple development environment to code in), pip (a package management system which

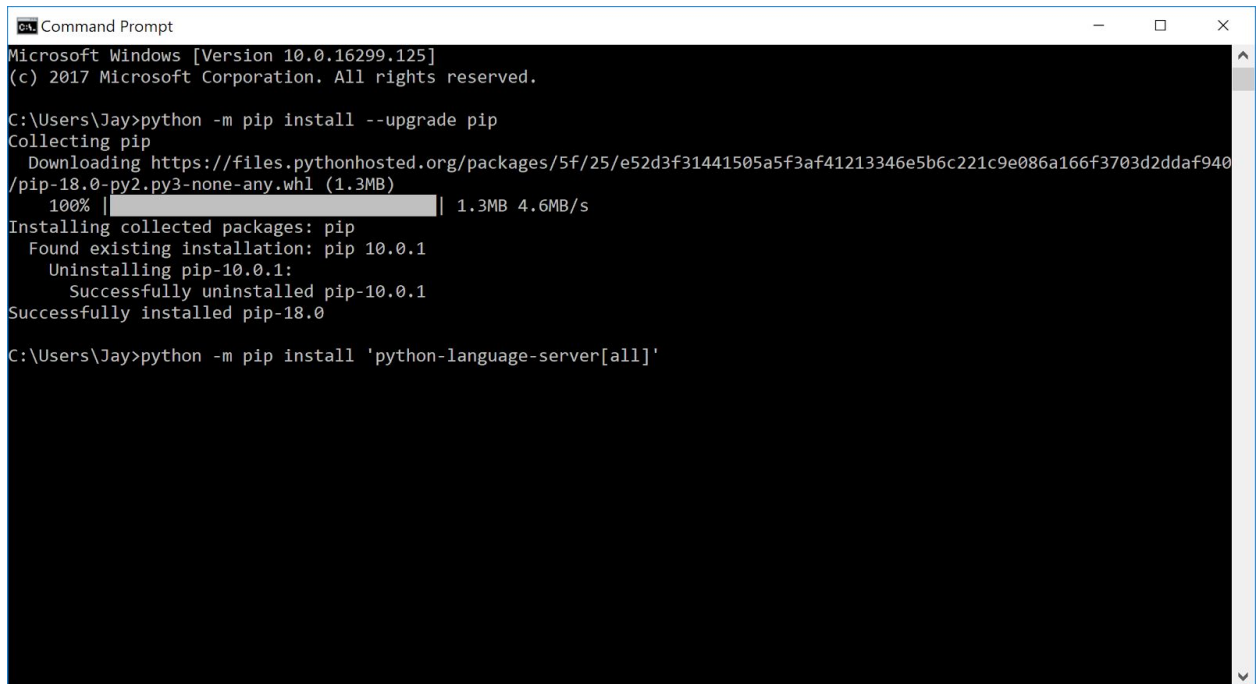
allows for easy installation of libraries full of additional code to make development even faster), and documentation (this will be helpful when you are looking to learn the specifics of how some functionality works or is implemented in Python).

3. Now that I have Python, I can install Atom. Head over to <https://atom.io> and a download button for your operating system should be on the right hand side of the window. Make sure the operating system is correct and download the installer.
4. Atom just starts installing once you give it permission to on windows. It will launch the application when finished.
5. If you successfully installed you'll should end up in the window below.



6. The “Register as default atom:// URI handler?” question that is in blue box in the upper right corner of the previous screenshot can just be closed by hitting the X. If you are interested in what it means copy and paste into a search engine and read a few results (this is what self driven learning is all about).
7. Open a command prompt (DOS). You can find it by searching cmd on Windows 10 (older versions of windows try opening run and typing cmd or cmd.exe). I ran into a problem due to an outdated version of pip so start by running `python -m pip install --upgrade pip` in the command prompt (copy and paste; ctrl+c and ctrl+p; work on windows command prompt)
8. You will now type `python -m pip install python-language-server[all]=0.20.0` into the command prompt (copy and paste; ctrl+c and ctrl+p; work on windows command prompt). You should have a screen similar (your directory will be different) as the one below. Make sure to not have quotes around the python-language-server[all] and add

the ==0.20.0 at the end. I had to troubleshoot some issues.

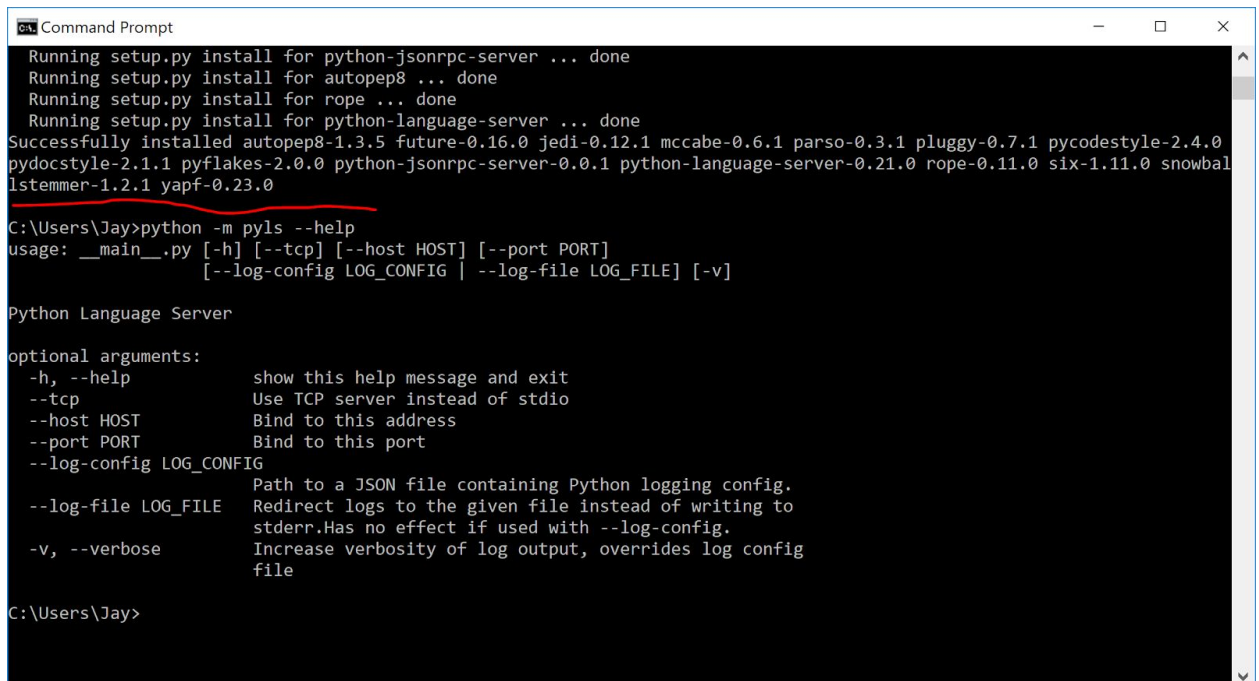


```
Command Prompt
Microsoft Windows [Version 10.0.16299.125]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\Jay>python -m pip install --upgrade pip
Collecting pip
  Downloading https://files.pythonhosted.org/packages/5f/25/e52d3f31441505a5f3af41213346e5b6c221c9e086a166f3703d2ddaf940/pip-18.0-py2.py3-none-any.whl (1.3MB)
    100% |#####| 1.3MB 4.6MB/s
Installing collected packages: pip
  Found existing installation: pip 10.0.1
  Uninstalling pip-10.0.1:
    Successfully uninstalled pip-10.0.1
  Successfully installed pip-18.0

C:\Users\Jay>python -m pip install 'python-language-server[all]'
```

9. You should have a final line that says successfully installed a bunch of packages. The red line in the next screenshot separates the output from the last command and the next command that I ran to check the python language server was installed correctly. That command was `python -m pyls --help`



```
Command Prompt

Running setup.py install for python-jsonrpc-server ... done
Running setup.py install for autopep8 ... done
Running setup.py install for rope ... done
Running setup.py install for python-language-server ... done
Successfully installed autopep8-1.3.5 future-0.16.0 jedi-0.12.1 mccabe-0.6.1 parso-0.3.1 pluggy-0.7.1 pycodestyle-2.4.0
pycodestyle-2.1.1 pyflakes-2.0.0 python-jsonrpc-server-0.0.1 python-language-server-0.21.0 rope-0.11.0 six-1.11.0 snowball
stemmer-1.2.1 yapf-0.23.0
-----
C:\Users\Jay>python -m pyls --help
usage: __main__.py [-h] [--tcp] [--host HOST] [--port PORT]
                  [--log-config LOG_CONFIG] [--log-file LOG_FILE] [-v]

Python Language Server

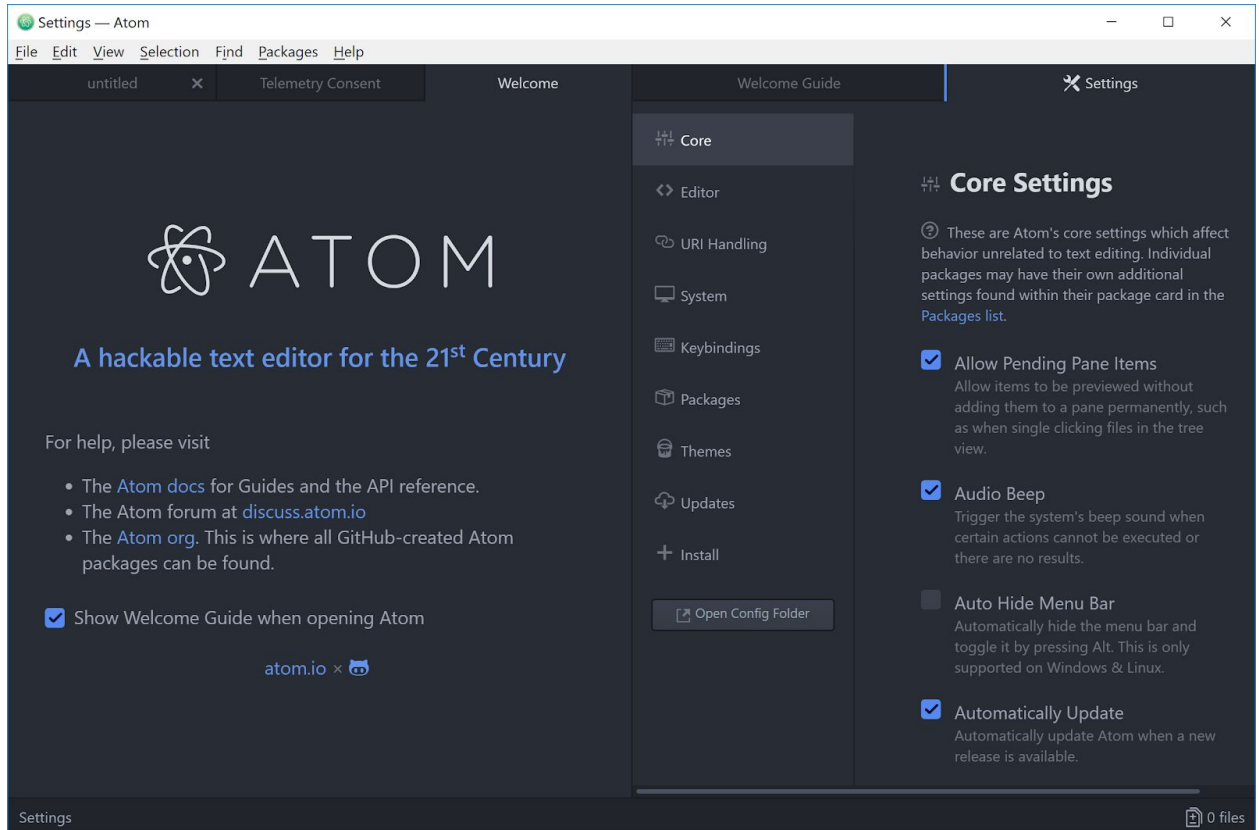
optional arguments:
  -h, --help            show this help message and exit
  --tcp                Use TCP server instead of stdio
  --host HOST           Bind to this address
  --port PORT           Bind to this port
  --log-config LOG_CONFIG
                        Path to a JSON file containing Python logging config.
  --log-file LOG_FILE   Redirect logs to the given file instead of writing to
                        stderr.Has no effect if used with --log-config.
  -v, --verbose         Increase verbosity of log output, overrides log config
                        file

C:\Users\Jay>
```

10. Since I expect most of you to be more familiar with using software in graphical user interfaces rather than on a command line, I will provide the next steps from within Atom. These steps could also be completed on the command line (in my experience GUIs are

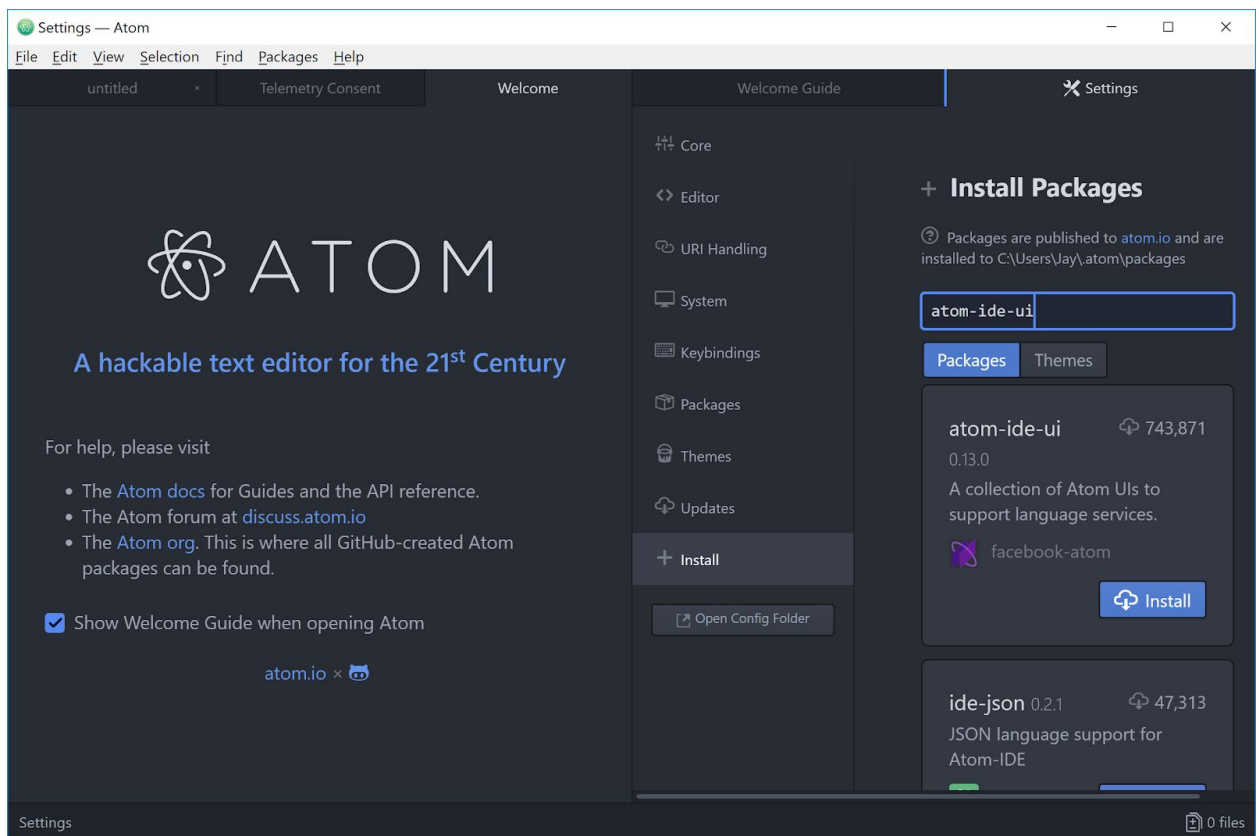
more tedious when you know what you are doing than CLIs but if you are unfamiliar with the commands, you spend time looking them up whereas you can just stumble around in a GUI and often find them).

11. Goto File→ Settings inside Atom (or use ctrl+,). The settings window will open inside its own tab in Atom.

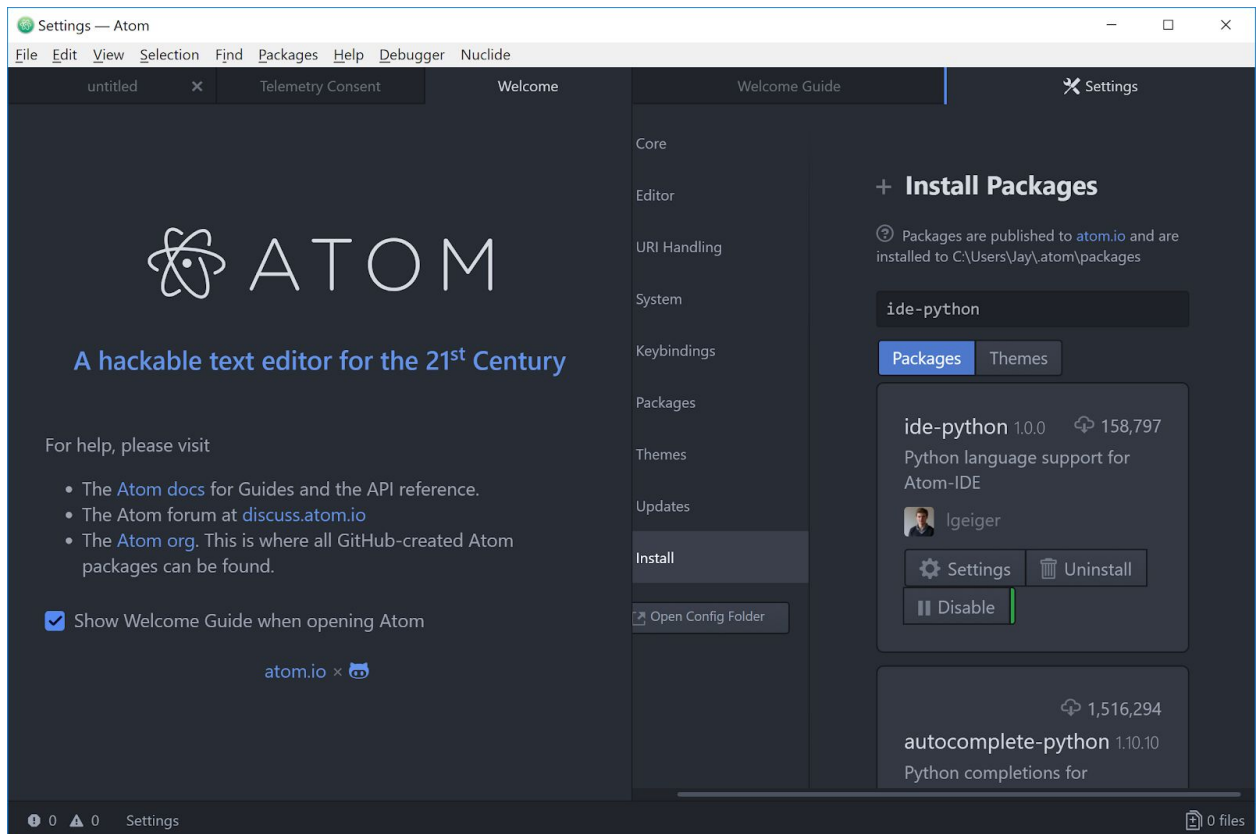


12. We are going to be installing packages so inside the Settings click Install (it's the last button on the sidebar menu of the window). First, search for the atom-ide-ui package. Click install for the correct package result. Installation takes a few minutes. The install button itself will appear like something is processing and have a cancel symbol if you hover over it. When done you will have three buttons listed on the package instead of

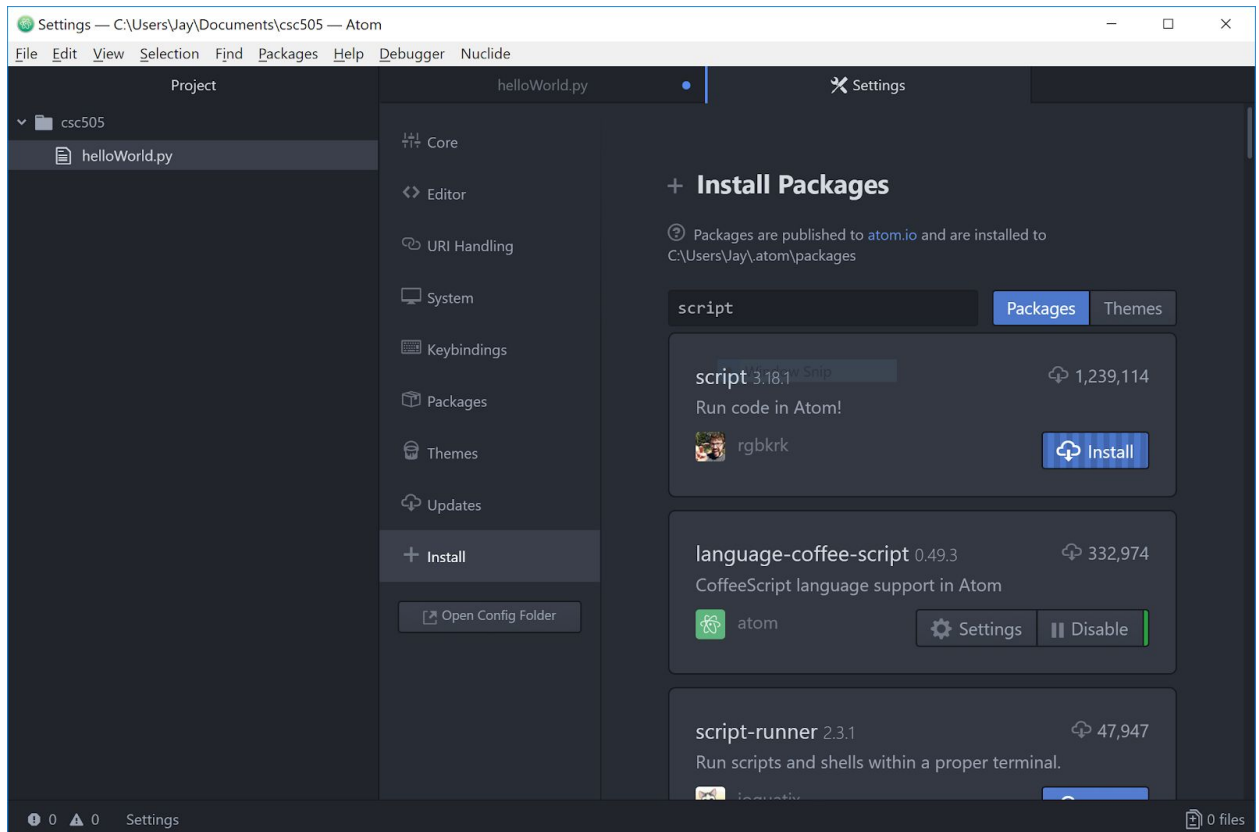
install; they are settings, uninstall, and disable.



13. Next, we are going to install another package inside Atom. Just delete atom-ide-ui from the search bar and search for ide-python.



14. Lastly, we will add the script package.



15. My installation is now complete. I can now run a script by hitting ctrl+shift+b (cmd+i on mac) while in the window or only a section by highlighting first
16. I know a few of you mentioned bioinformatics. You may want to look into the Hydrogen package inside atom. This package allows for a more interactive coding environment which is generally preferable in a lot of data analysis situations.