Jupyter Notebook Setup for Mac and Tier3

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1 MacOS Setup

Documentation for installing Anaconda locally on Mac here.
Graphic Installer
Command Line Installer
If using command line installer: Open a terminal and run the following:

```
shasum -a 256 /path/filename
```

Note: Replace `/path/filename+ with your installation's path and filename.` Install for Python 3.7 or 2.7:

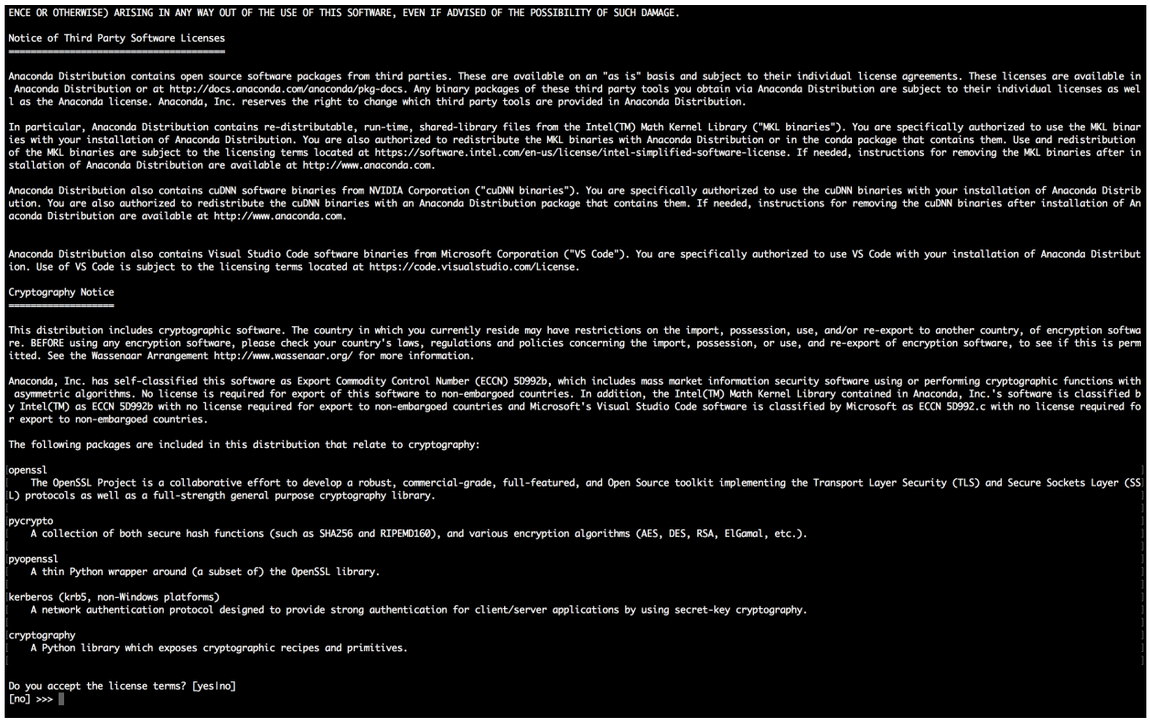
For Python 3.7, enter the following:

```
bash ~/Downloads/Anaconda3-2020.02-MacOSX-x86_64.sh
```

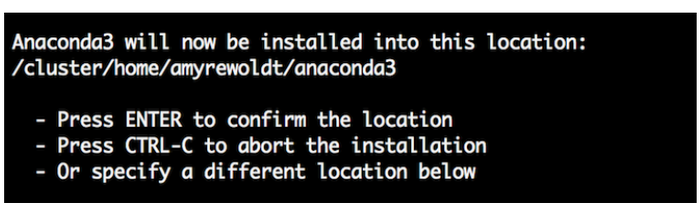
For Python 2.7, enter the following:

```
bash ~/Downloads/Anaconda2-2019.10-MacOSX-x86_64.sh
```

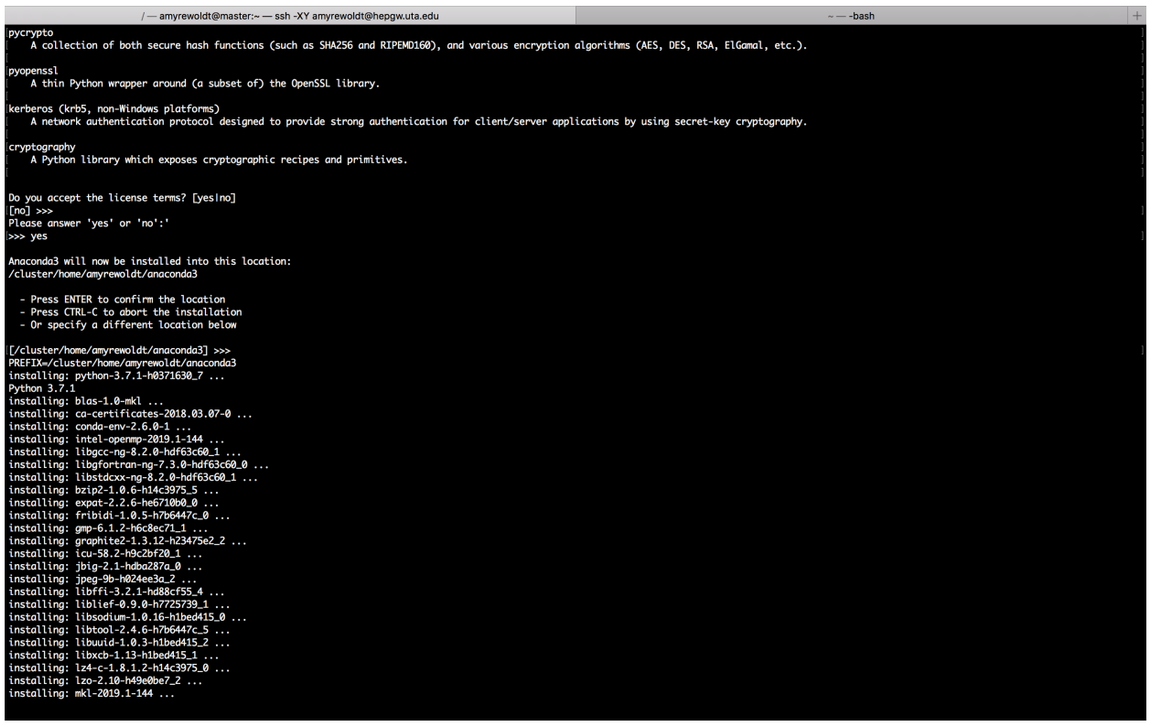
You should see page that looks like this (you may have to scroll some):



Type `yes`
You will be prompted to confirm your path to anaconda, as shown below:



Press `ENTER` to confirm.
You should see something like this when packages begin install:



Note: This could take a minute or two.

Once install is complete, type `jupyter notebook` into your command line. A notebook directory containing your local files should open in your default browser.

To close notebook, press `Ctrl`+`C` then confirm with `y`

2 Tier3 Setup

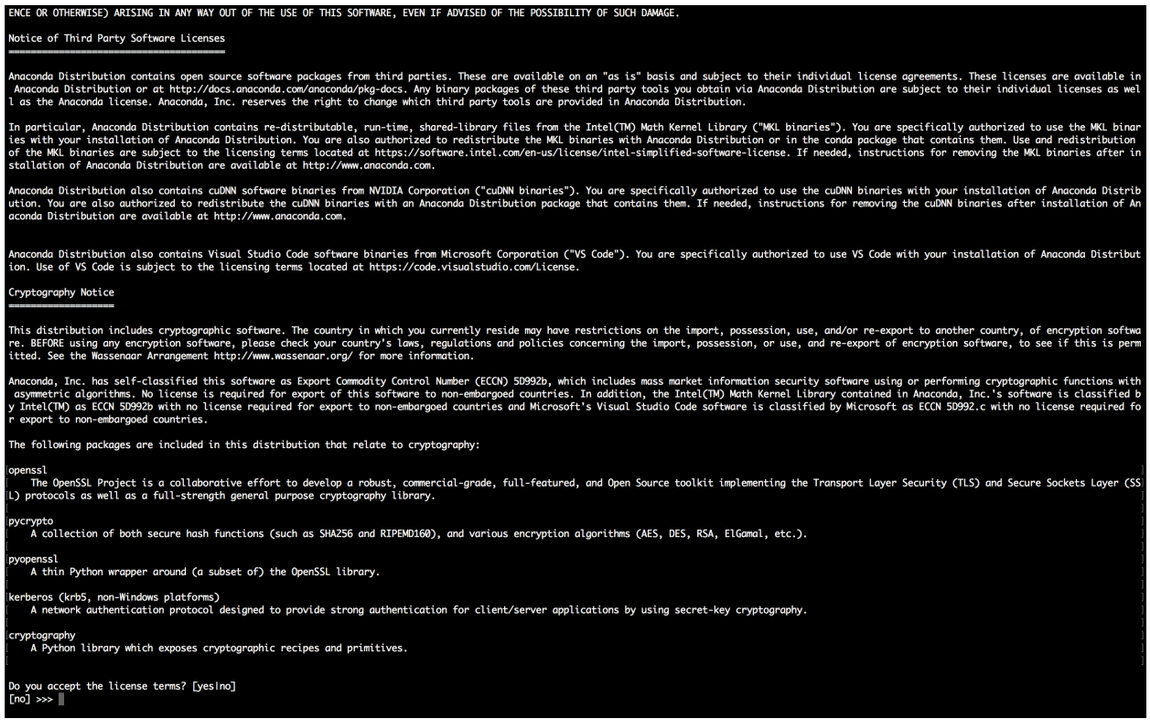
Login to your tier3 account using the VPN `<username>@master.tier3-atlas.uta.edu` .
Note: Using the hepgw may give you issues later when opening jupyter notebook in convenient browsers.
Enter `cd /tmp` to change to /tmp directory then download anaconda3 installer here using the following command:

```
wget https://repo.continuum.io/archive/Anaconda3-2018.12-Linux-x86_64.sh
```

Then install anaconda3 by entering:

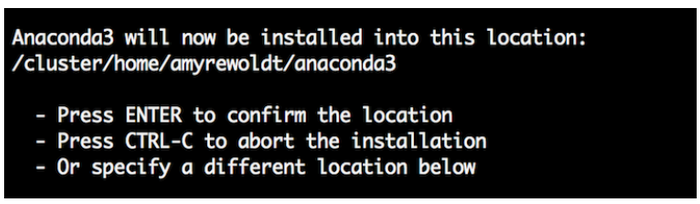
```
bash Anaconda3-2018.12-Linux-x86_64.sh
```

You should see page that looks like this (you may have to scroll some before prompted):



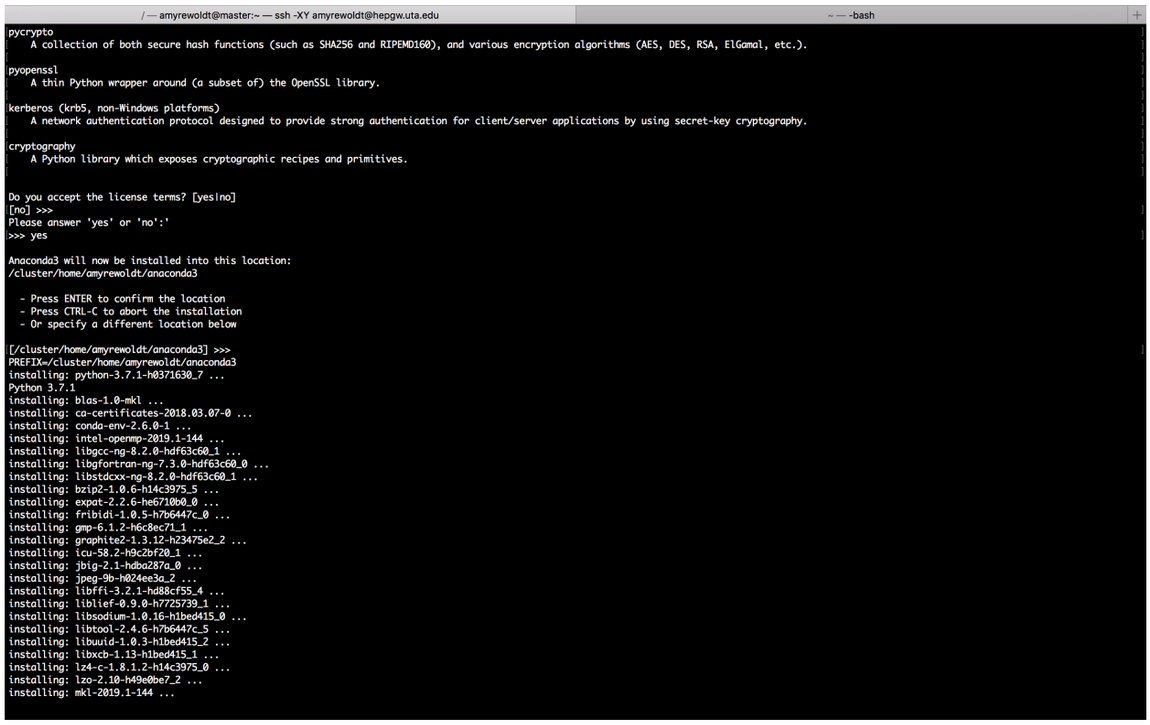
Type `yes`

You will be prompted to confirm your path to anaconda3, as shown below:



Press `ENTER` to confirm.

You should see something like this when packages begin install:



Note: This could take a minute or two.
You should be prompted again with the following:

```
Do you wish the installer to initialize Anaconda3 in your /cluster/home/amyrewoldt
/.bashrc ? [yes|no]
```

Recommended answer: `yes`
This way each time you login to tier3 anaconda will be initialized and ready to use.
Note: If you enter `no`*, each time you login and want to use anaconda commands or packages, you will have to source your file with command:* `source <path to conda>/bin/activate`

Next you will be prompted with:

```
Do you wish to proceed with the installation of Microsoft VSCode?
```

Enter `no`

First Use: Either `source <path to conda>/bin/activate` OR exit tier3 and login again to reinitialize bash script.
Now you will be in conda environment and should have access to jupyter notebook on tier3.

Opening Jupyter Notebook on Tier3 in Any Browser:

Open new terminal and enter:

```
ssh -N -f -L localhost:8000:localhost:8000 <username>@master.tier3-atlas.uta.edu
```

Note: This allows tier3 to 'communicate' with your local machine.
After this, return to tier3 window, enter:

```
jupyter notebook --no-browser --port=8000
```

This tells jupyter notetbook to open without an initial browser and to listen to specified port 8000.

You should see:

In the browser of your choice enter `http://localhost:8000/`

You may be asked to enter a key. Enter the string boxed in blue in the image above (found in your respective terminal window).

Assuming nothing went terribly wrong, you should see your tier3 home directory open in Jupyter.