Getting Your Environment Setup (using Anaconda)

CAP 5415 - Computer Vision - Fall 2018

We suggest making a directory for the course on your local machine, we'll be assuming this sort of structure moving forward with directions. So you should have a structure much like this:

```
cap5415
+-- pa1-intro-numpy-linear-regression
+-- pa2-...
+-- pa3-...
+-- pa4-...
+-- pa5-...
+-- pa6-...
```

IMPORTANT NOTE: Repeat this process for ***every*** assignment (this applies to all operating systems).

On MacOS:

NOTE: We highly recommend using the command-line (Terminal) whenever possible, especially since you're on a MacOS. **This installation will use Terminal.app.**

1. Run;
   `curl -SL -o miniconda.sh https://repo.continuum.io/miniconda/Miniconda3-4.5.4-MacOSX-x86_64.sh`
2. Then run: `sh miniconda.sh`
3. You'll be prompted to accept terms, then install to `~/miniconda3` – do all of this.
4. Next, you'll want to write: `echo "export PATH=$HOME/miniconda3/bin:$PATH" >> ~/.bashrc`
5. Now, you'll have Anaconda installed.
6. Next, make sure you're in your the `cap5415` folder on your system.
7. Run: `conda env create --yes -f <pa>/env.yml`
8. This should take you through an installation process, agree to all questions posed by Anaconda.

On Linux:

NOTE: We highly recommend using the command-line (Terminal) whenever possible, especially since you're on a Linux-based OS. **This installation will use your Terminal emulator.**

1. Run;
   `curl -SL -o miniconda.sh https://repo.continuum.io/miniconda/Miniconda3-4.5.4-Linux-x86_64.sh`
2. Then run: `sh miniconda.sh`
3. You'll be prompted to accept terms, then install to `~/miniconda3` – do all of this.
4. Next, you'll want to write: `echo "export PATH=$HOME/miniconda3/bin:$PATH" >> ~/.bashrc`
5. Now, you'll have Anaconda installed.
6. Next, make sure you're in your the `cap5415` folder on your system.
7. Run: `conda env create --yes -f <pa>/env.yml`
8. This should take you through an installation process, agree to all questions posed by Anaconda.

NOTE: We will ***not*** support anything other than the environments we provide to you. If you choose to use something else (like pip), you're on your own in terms of troubleshooting library errors.

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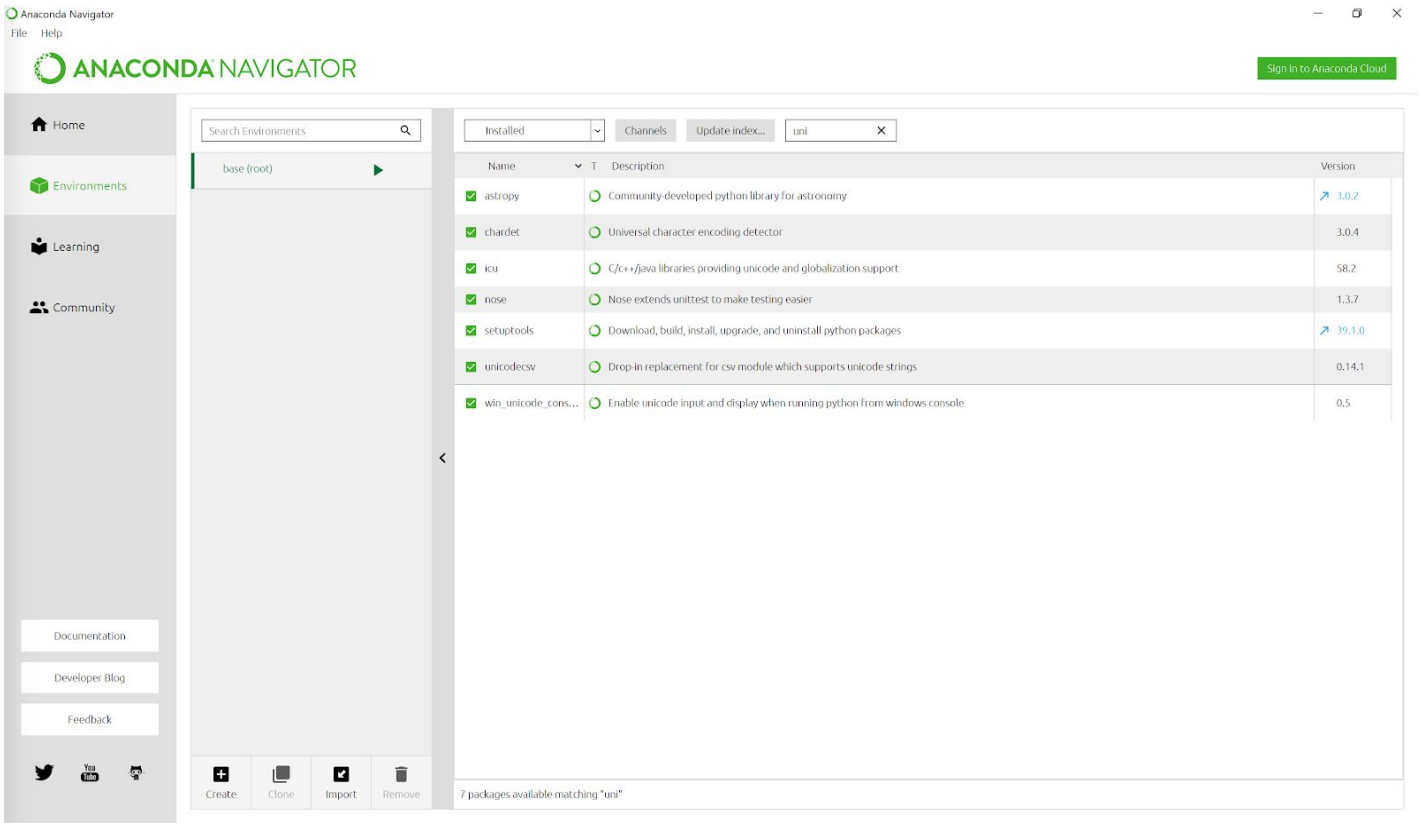
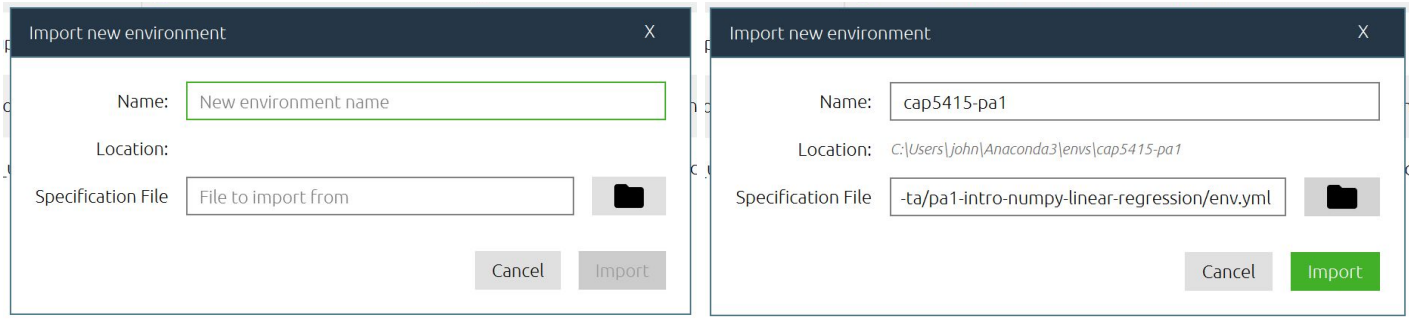
On Windows:

1. Install Anaconda for Windows from https://www.anaconda.com/download/#windows (pick the Python 3.6 edition).
2. Go through the Graphical Installer.
3. Once this has finished installing, open “Anaconda Navigator”



4. Find your way to “Environments” on the left-hand side.
5. There will be a column immediately to the right of the menu bar you found environments in – at the bottom of that column it will say “Import” – click it.
6. You’ll be prompted to specify a path to an environment file – make your way to this assignment’s **env.yml** file.



7. Click “Import.”

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Getting Started with Jupyter:

- For our purposes, this is a “good enough” guide to Jupyter: http://stuartmumford.uk/blog/jupyter-notebook-and-conda.html
- This is a comprehensive guide to using Jupyter: https://www.datacamp.com/community/tutorials/tutorial-jupyter-notebook
    - DataCamp provides quite a bit more information than you should need, an also installs using Pip – we opt for Anaconda due to it’s more encompassingn nature as a package manager.
    - We suggest immediately hopping down to: https://www.datacamp.com/community/tutorials/tutorial-jupyter-notebook#UseJupyter

For those of you on Windows, the process should be the same as outlined in each article, however you’ll want to use the “Anaconda Prompt” to do these instead of a typical command-line.

NOTE: Prior to launching `jupyter notebook` you **must** activate the environment.

- On Windows, in Anaconda Prompt, `activate cap5415-pa<N>` where <N> is the assignment number.
- On MacOS/Linux, in a shell, `source activate cap5415-pa<N>` where <N> is the assignment number.

NOTE: We will ***not*** support anything other than the environments we provide to you. If you choose to use something else (like pip), you’re on your own in terms of troubleshooting library errors.