

# Setting up Python 3.6 for CS760, Spring 2019

Due to the size of the class, we have decided to require that all programming assignments be written in python3.6.

**Learning Python.** If you are not familiar with Python, then this is your opportunity to learn! There are many tutorials available online. You may find the official tutorial here: <https://docs.python.org/3.6/tutorial/>. You will find Python to be a versatile and powerful language, with the support of a vibrant user community.

**Setting up your Python environment.** There are subtle differences between versions of Python, and between versions of Python packages (e.g. `numpy` and `pandas`). We need to make sure we're all using the same versions—otherwise, your code may run differently while the TAs are grading it.

In the following instructions, we assume you have access to a Linux computer with the following programs installed on it.

- `python3`
- `pip`
- `virtualenv`

Note: the CS lab Linux computers satisfy this requirement.

We're going to do the following:

1. create a *virtual environment* for running your cs760 code.
2. install specific versions of `numpy` and `pandas` in that virtual environment.

You will need the “requirements.txt” file located on Canvas:  
<https://canvas.wisc.edu/courses/127602/files>

Open a bash terminal and run the following commands:

```
# Make a directory where you can keep your virtual environments
# (if you don't already have one):
$ mkdir ~/envs

# Make a virtual environment called 'cs760':
$ virtualenv --python=python3.6 ~/envs/cs760

# activate the virtual environment:
$ source ~/envs/cs760/bin/activate

# install the allowed packages for cs760:
(cs760) $ pip3 install -r requirements.txt
```

Congratulations! You have a virtual environment identical to the one used by the TAs. They'll be able to run your code without a problem.

**Using your virtual environment.** Whenever you want to run your code for CS760 homework, just 'activate' the virtual environment:

```
$ source ~/envs/cs760/bin/activate
```

You'll know the virtual environment is active because its name will appear in parentheses to the left of the bash prompt:

```
(cs760) $ python your_code.py
```

When you don't need the virtual environment, just 'deactivate' it.

```
(cs760) $ deactivate
```

If you want to use a Python package that isn't included in the official virtual environment, contact the TAs for approval.