Thank you for registering for the 2019 Data Science Boot Camp, August 12-16, 2019. Please read the information below carefully as it contains important information about the upcoming course and software you should install prior to arriving at the boot camp.

Classroom Instruction and Software

You are required to bring a laptop that you will use for the hands-on exercises throughout the week.

You can install everything directly onto your own laptop. Please see below for the different software that you will need to install BEFORE you come to class. Installing software prior to arriving is particularly important for attendees that do not have administrative access on their laptop.
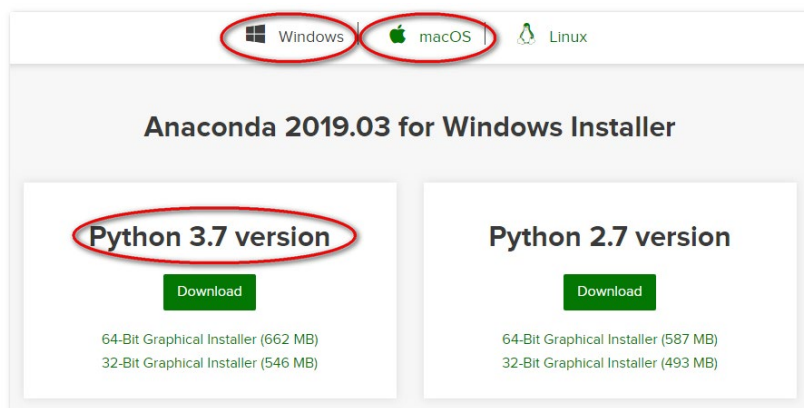
Anaconda installation instructions:

Download and install:
Windows: https://docs.anaconda.com/anaconda/install/windows/

Mac: https://docs.anaconda.com/anaconda/install/mac-os/
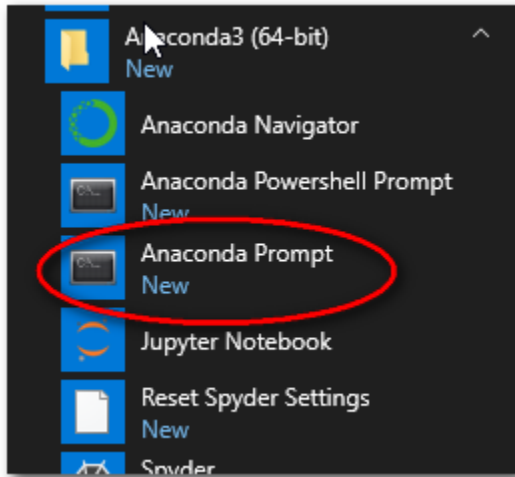
Install **Python 3.7** version!

Configuring your environment:

Conda cheat sheet: [Here](#)

Mac: open terminal

Windows: Open Anaconda prompt


```
>> which python

(will see base env)

>> conda create --name py37rice python=3.7

>> source activate py37rice (Mac)

>> activate py37rice (Windows)

>> which python

(will see your new env)

>> conda list
```
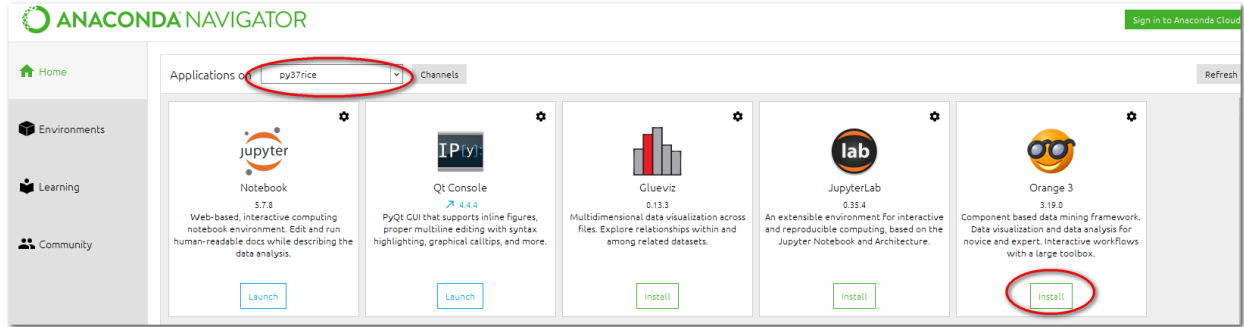
Ways to install Python package:

1. `>> conda install jupyter`
2. `>> pip install pandas`
3. `>> pip install -r /<your path>/requirements.txt`

```
scikit-learn
matplotlib==3.0
```

4. Using Anaconda Navigator (switch to your env)

Running jupyter notebook:

```
>> source activate py37rice (Mac)

>> activate py37rice (Windows)

>> jupyter notebook (browser will open)
```
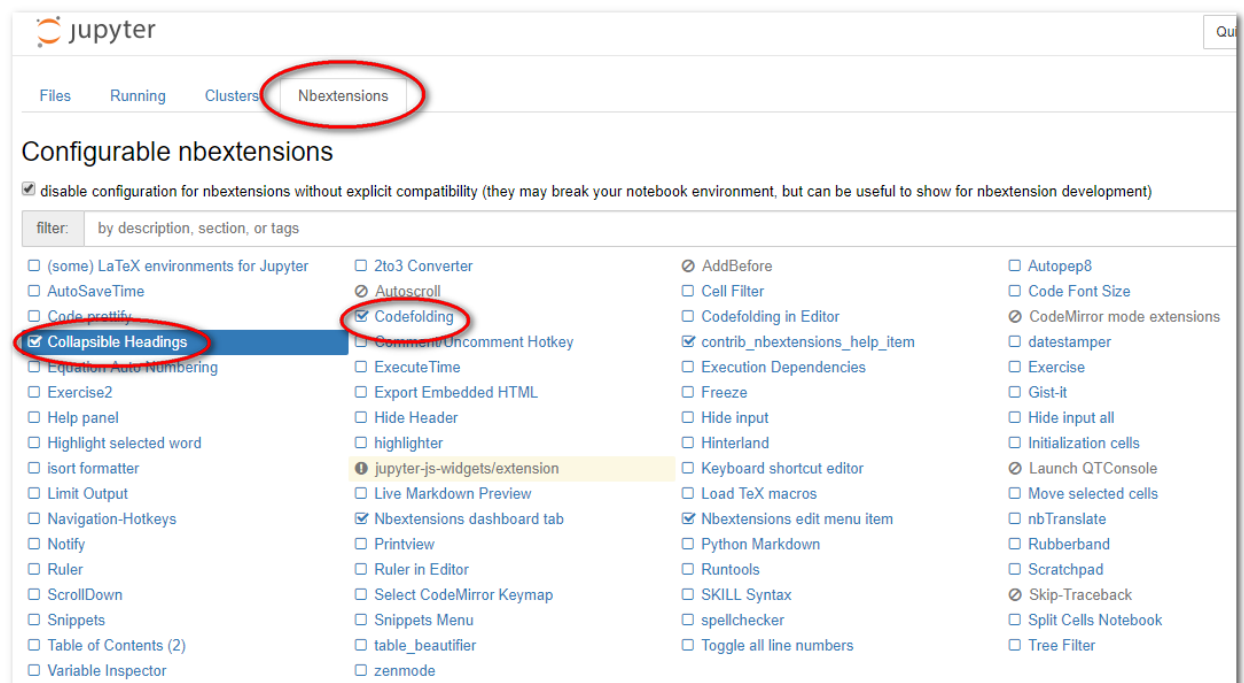
Installing jupyter extensions (optional):

```
>> source activate py37rice (Mac)

>> activate py37rice (Windows)

>> conda install -c conda-forge jupyter_contrib_nbextensions

>> jupyter notebook (start notebook in the browser)
```

Create new notebook:

Create collapsible sections by using markdown "# section"

All functions will be collapsible as well.

Installing git (windows only):
On anaconda prompt, switch to your enviorment and run

```
>> conda install git pip
```

Testing your install:
Start your notebook:

```
>> jupyter notebook (start notebook in the browser)
```

In the coding cell try these imports:

```
>> import numpy
```

```
>> import sklearn
```

More instructions on how to use Jupyter notebooks:

https://www.codecademy.com/articles/how-to-use-jupyter-notebooks

Instructions for setting up Google Colaboratory

Google Colaboratory is a research tool for machine learning education and research. It is a Jupyter notebook environment that requires no setup to use. It now provides free GPU backends for training. We will use the Google Colaboratory for the Bootcamp module on Supervised Learning (August 15 afternoon and August 16 morning). In the Google Colaboratory you can easily develop deep learning applications using popular libraries such as Keras, TensorFlow, PyTorch and OpenCV. Here is a link to the FAQ for this service.

- Please sign up at https://colab.research.google.com/ and apply for access before you start using Google Colaboratory. We will connect to a Githib repository during the Bootcamp and run several interesting deep learning models.

Other laptop requirements:

- You will need an IDE or appropriate text editor for editing code. There are many options but one that will work is Sublime Text 2 (or newer). Sublime Text may be downloaded and evaluated for free. However, a license must be purchased for continued use but the evaluation should be fine for the class. If you prefer some other development editor that is fine, use what you are comfortable with.
- Your computer should have enough free disk space to work comfortably with approximately 1GB of data.
- If using Windows you will also need (this is native on Mac and Linux)

    o a secure file transfer tool, for example
      WinSCP: http://winscp.net/eng/download.php
    o an SSH client and utilities, for example
      PuTTY: http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html

Materials

All classroom materials will be shared via box.com. Hard copies will NOT be printed for the course. Please click below to access the Box folder:

 http://bit.ly/ds-bc19

Please take a moment now to ensure you can access this folder.

The materials will generally be in PDF format. You can download and save each pdf to your own laptop and use Adobe Acrobat Reader for commenting or note taking digitally.

When and Where:

Monday- Friday, August 12-16, 2019
   8:00am – Breakfast
   8:30am – Start of Instruction
* 5:00pm - End of Instruction

*Class will conclude at 12:00 p.m. on Friday with a box lunch.

Location:

Rice University
6500 Main Street, Houston, Texas 77005
Building: BioScience Research Collaborative (BRC), Room 280

The BRC is located at Main and Dryden Street. Visitor parking is available in the garage located directly beneath the BRC. The entrance to the garage is located on Dryden Street.

https://goo.gl/maps/gaeig8G3WGt

Please take a moment to review the map and directions before the first day of class. If you have any questions, please contact the Ken Kennedy Institute at 713-348-5823 or at k2i@rice.edu.

Food

Continental breakfast and lunch will be provided each day. In addition, complimentary snacks will be provided throughout each day. If you have any special dietary requirements, please notify the Ken Kennedy Institute 3 days prior to the start of class.

We look forward to having you attend the 2019 Rice Data Science Boot Camp!

The Ken Kennedy Institute
Rice University
713-348-5823
 k2i@rice.edu