

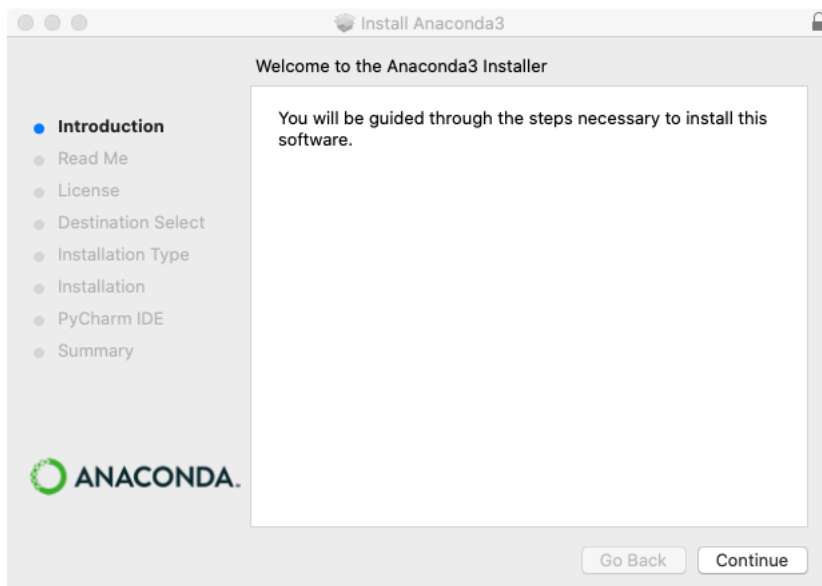
Software Setup

Working locally on your machine

1. Install anaconda in your machine

If you wish to work locally, you should use a virtual environment. You can install one via Anaconda through (<https://www.anaconda.com/products/individual#Downloads>) the recommended working OS is MacOS or Linux. Ensure you are using Python 3 as **we are no longer supporting Python 2**. Please select 64-Bit Graphical Installer with python version 3.8.

In this module, we will chose **notebook** and **spyder** as our main IDEs for both lab and coursework.



2. Setup anaconda environment

Once you have Anaconda installed, it makes sense to create a virtual environment for the module that support your with custimized dependencies. To set up a virtual environment called FAlens, run the following in your **terminal** (Linux and MacOS users), for windows users, run the these commands with **Anaconda Prompt** you have just installed together with anaconda (you can find it in start up list or inside anaconda navigator).

```
conda create -n FAIens python=3
```

To activate and enter the environment, run

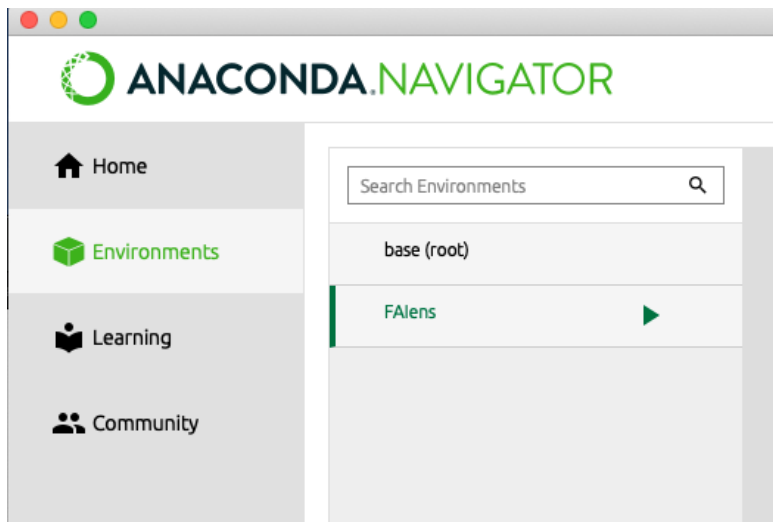
```
conda activate FAIens
```

When you finish working with the environment, you can deactivate the environment by running

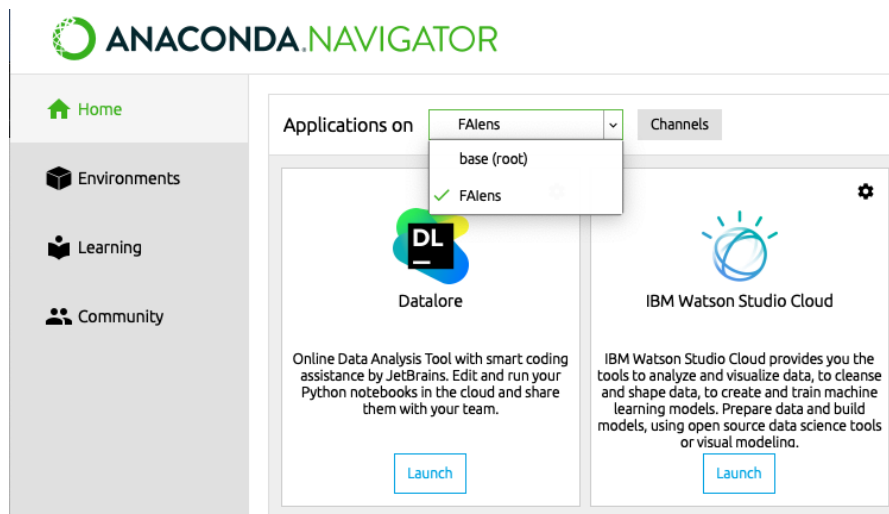
```
conda deactivate FAIens
```

or exit the terminal. Note that every time you want to work on the python code, you should activate the environment.

Alternatively, you can create the FAIens envriment in anaconda GUI under Environments tab,



To activate the envriment using anaconda GUI, you can choose the channel under Home tab.



3. Install packages under FAIens environment

Under the environment of FAIens, install dependencies and packages using terminal (linux and macOS) or anaconda prompt (windows) by commands:

```
conda install matplotlib networkx sortedcontainers ipywidgets
```

```
Anaconda Prompt (anaconda3) - Pip install matplotlib qpsolvers networkx ipythonblocks sortedcontainers
# To deactivate an active environment, use
# $ conda deactivate
(base) C:\Users\qian>conda activate FAIens
(FAIens) C:\Users\qian>Pip install matplotlib qpsolvers networkx ipythonblocks sortedcontainers
Collecting matplotlib
  Downloading matplotlib-3.3.4-cp38-cp38-win_amd64.whl (8.5 MB)
    | 225 kB 11 kB/s eta 0:11:45
```

Note: if you are in campus, this will take you at most couple of minutes to install all the packages. If you experienced slow download speed, you may need consider use vpn.