

Getting Started with Anaconda: Installation and Basics

Anaconda is a powerful platform for data science and programming in Python. Anaconda installation includes python, extra python packages and Jupyter notebook.

This document will guide you through the installation and basic usage of Anaconda on various operating systems.

Section 1: Installation

1.1 Installing Anaconda:

- Download Anaconda from the official [website](https://docs.anaconda.com/free/anaconda/install/):
<https://docs.anaconda.com/free/anaconda/install/>
Click the installation link on the website for macOS, Windows, Linux accordingly:

On Windows, macOS, and Linux, it is best to install Anaconda for the local user, which does not require administrator permissions and is the most robust type of installation. However, with administrator permissions, you can install Anaconda system wide.

Installing on Windows

Installing on macOS

Installing on Linux

- Follow the installation guide for your platform on the official website. For macOS, we recommend installing using wizard, rather than command line.
- Once installed, verify the installation of the Anaconda Navigator:
 - On **Windows / Mac**, search for Anaconda Navigator in your system's applications.
 - On **Linux**, run terminal (*Ctrl + Shift + T*) and type:

```
anaconda-navigator
```

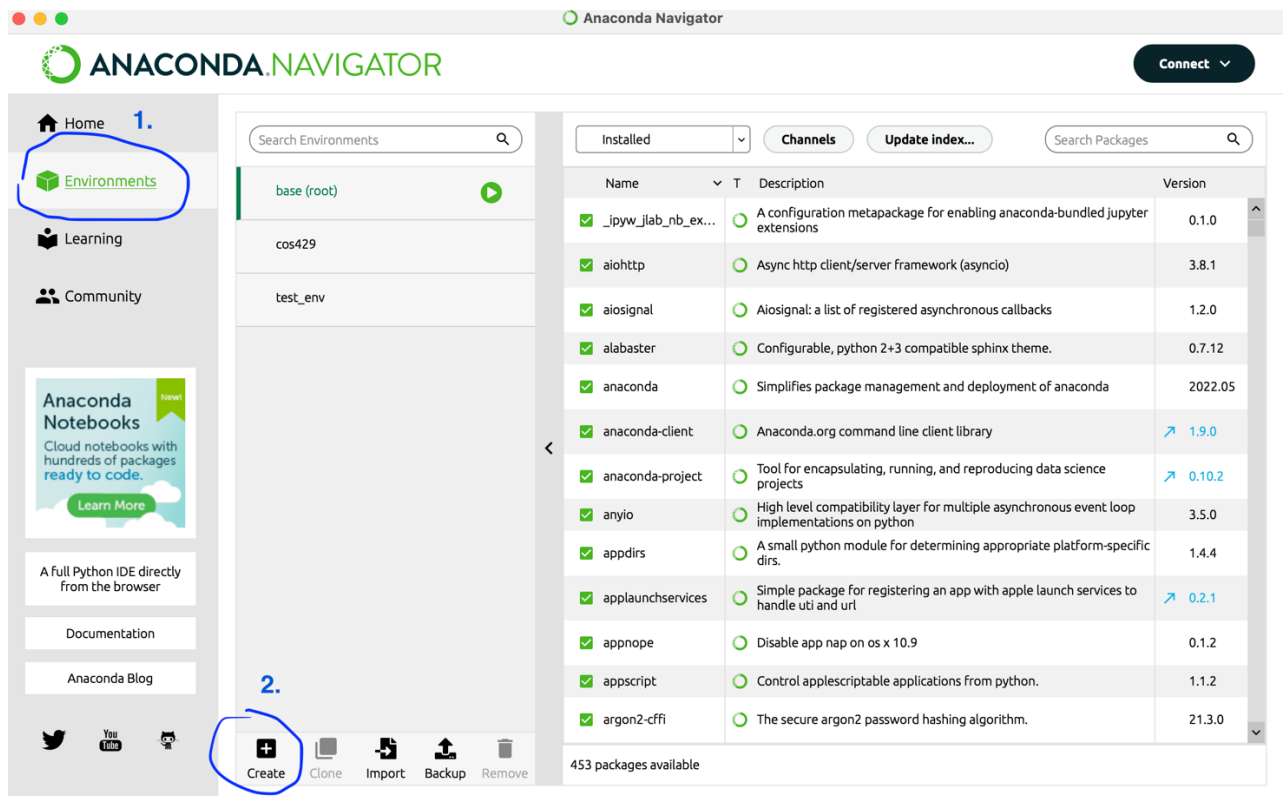
Section 2: Using Anaconda Navigator with graphical interface.

2.1 Creating a New Environment:

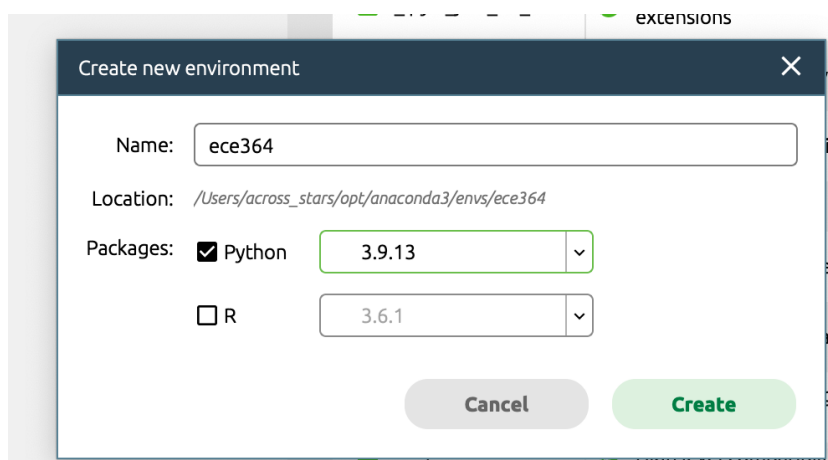
After launching Anaconda, by default, you are in **base** environment. We recommend creating a new environment for every major project to isolate different version of packages from each

other. E.g., for this class, you might want to create an environment *ece364* and install all necessary packages there:

- Open Anaconda Navigator.
- Click on the "Environments" tab.
- Click the "Create" button to create a new environment.



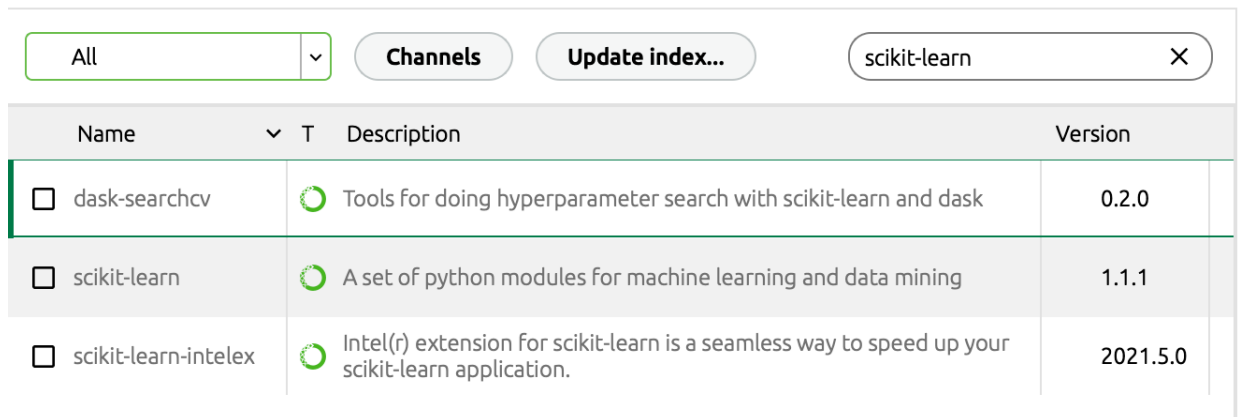
- Specify the environment name and choose the Python version.



- Click "Create" to complete the process.

2.2 Installing Packages:

- In Anaconda Navigator, select your environment.
- Choose “All” in the drop-down menu:

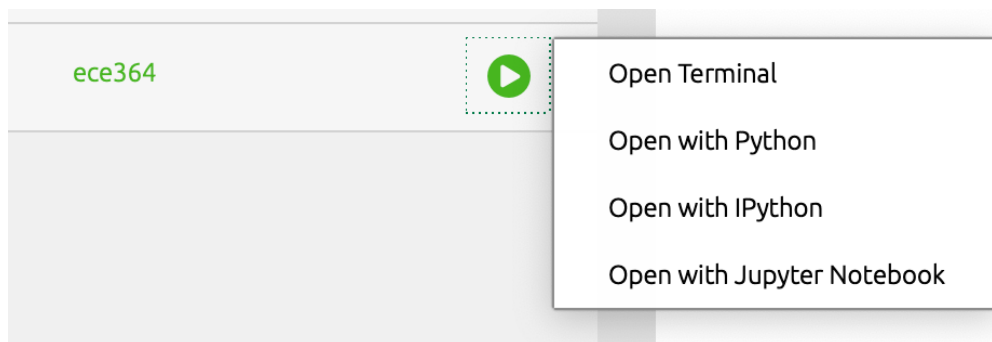


Name	T	Description	Version
<input type="checkbox"/> dask-searchcv		Tools for doing hyperparameter search with scikit-learn and dask	0.2.0
<input type="checkbox"/> scikit-learn		A set of python modules for machine learning and data mining	1.1.1
<input type="checkbox"/> scikit-learn-intelex		Intel(r) extension for scikit-learn is a seamless way to speed up your scikit-learn application.	2021.5.0

- Type the name of required package in "Packages" tab to search, next select the package you need and click “Apply”. For the first assignment, you need to add the following packages into your working environment:

Pandas, numpy, matplotlib, matplotlib-inline, seaborn, scikit-learn

- To run Jupyter, tap the play button near the activated environment and select Jupyter:



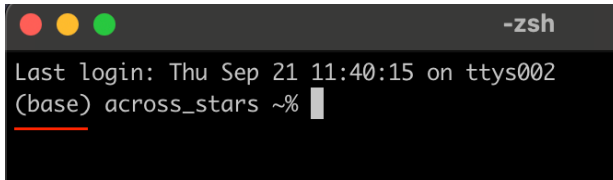
2.3 Managing Environments:

- You can activate and deactivate environments from the "Home" tab.
- Use the "Environments" tab to manage existing environments (remove them)

Section 3: Using Anaconda Navigator in the Command Line

3.1 Activating and Deactivating Environments:

- Open a terminal. By default, you are in base environment:

A terminal window with a dark background and three colored window control buttons (red, yellow, green) in the top left corner. The title bar on the right says "-zsh". The terminal text shows "Last login: Thu Sep 21 11:40:15 on ttys002" followed by the prompt "(base) across_stars ~%" with a cursor. The word "(base)" is underlined in red.

```
-zsh
Last login: Thu Sep 21 11:40:15 on ttys002
(base) across_stars ~%
```

- Create a new environment called ece364:
`conda create --name ece364`
- Activate the environment using the command:

```
conda activate ece364_name
```

3.2 Installing Packages via CLI:

- Packages will be installed into your *active* environment, so don't forget to activate it first. For installation commands, you may simply google the required package: *anaconda install <your package name>* and copy the commands from [the official anaconda website](#). For the first assignment the commands will be:

```
conda install -c anaconda scikit-learn pandas numpy seaborn
```

```
conda install -c conda-forge matplotlib
```

3.3 Running Jupyter:

- Run jupyter in your active environment running the command:

```
jupyter-notebook
```

It should start in your browser. Now you can navigate the folder tree.