

Instructions for installing Python and Gurobi

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1. Installing Python

There are various ways of installing python. The straightforward way is to go to the website <https://www.python.org/downloads/> and download the installer and install python. Another way is to install Anaconda which installs Python with an Integrated Development Environment (IDE) named **Spyder**, a command shell named **IPython**, and **Jupyter Notebook**, which I'll use for teaching.

What is Anaconda?

According to Wiki, Anaconda is a free and open-source distribution of the **Python** and **R** programming languages for scientific computing (data science, machine learning applications, large-scale data processing, predictive analytics, etc.), that aims to simplify package management and deployment.

Instructions to install Anaconda

- A.** Go to the website <https://www.anaconda.com/products/individual>.
- B.** Click on the **Download** button. Then, select the appropriate OS and processor (See Figure 1) and save the installer file.

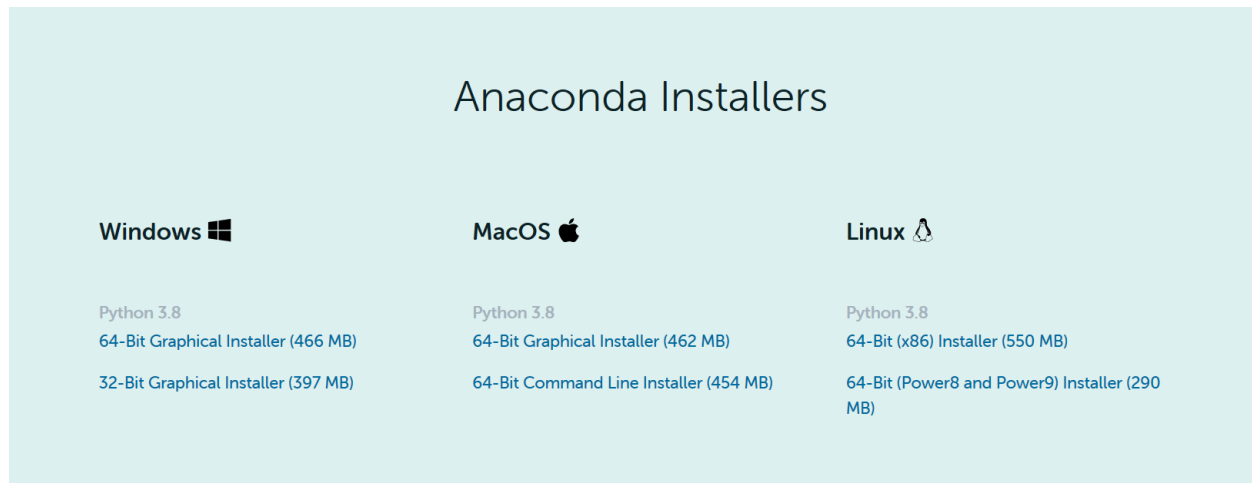


Figure 1: Available installers

- C. Go to the download folder location and double click on the installer.
- D. Click **Next, I agree**, **Next**, then **Install**, and finally, **Finish**.

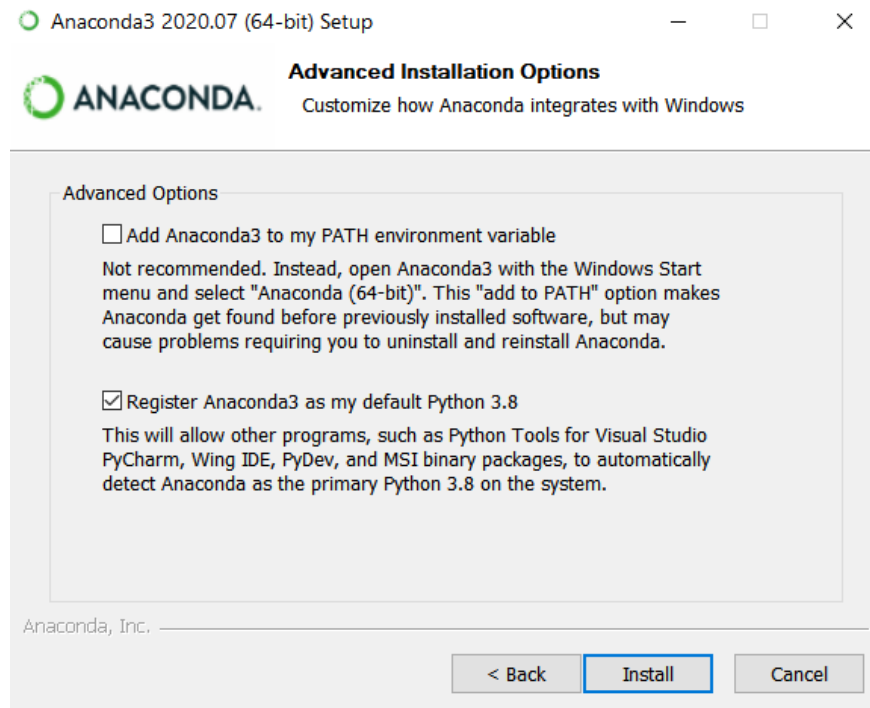


Figure 2: Anaconda installation

- E. Search **Anaconda Navigator** in the start menu and open jupyter notebook.

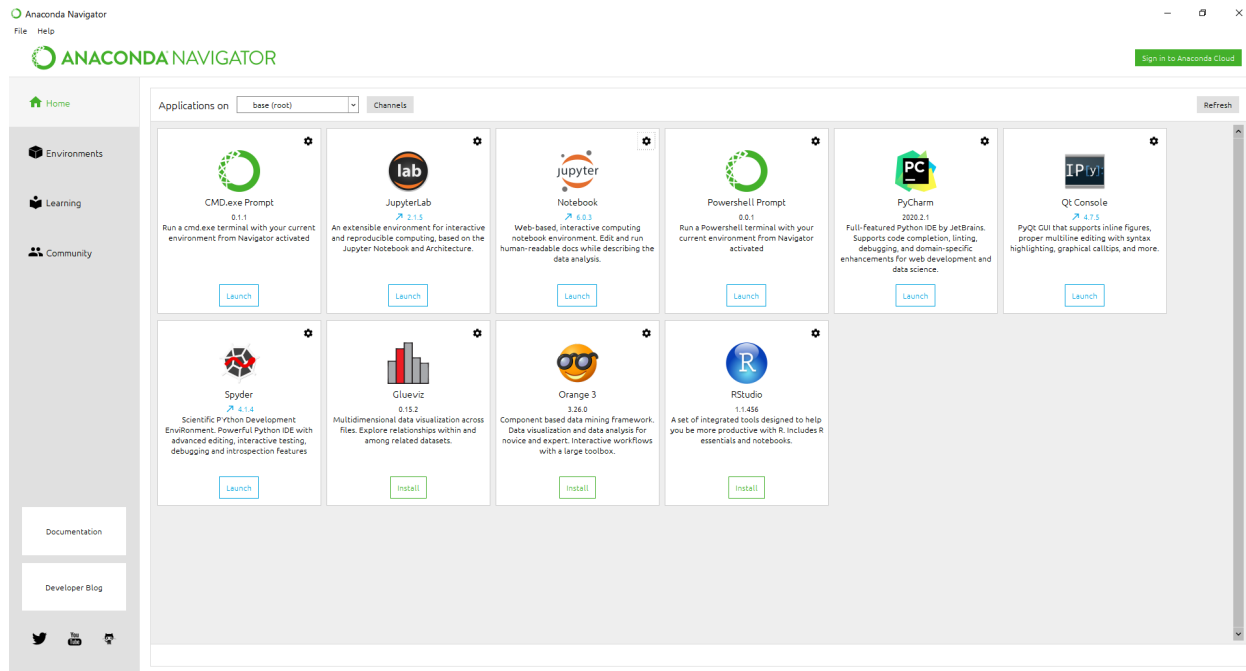


Figure 3: Anaconda Navigator

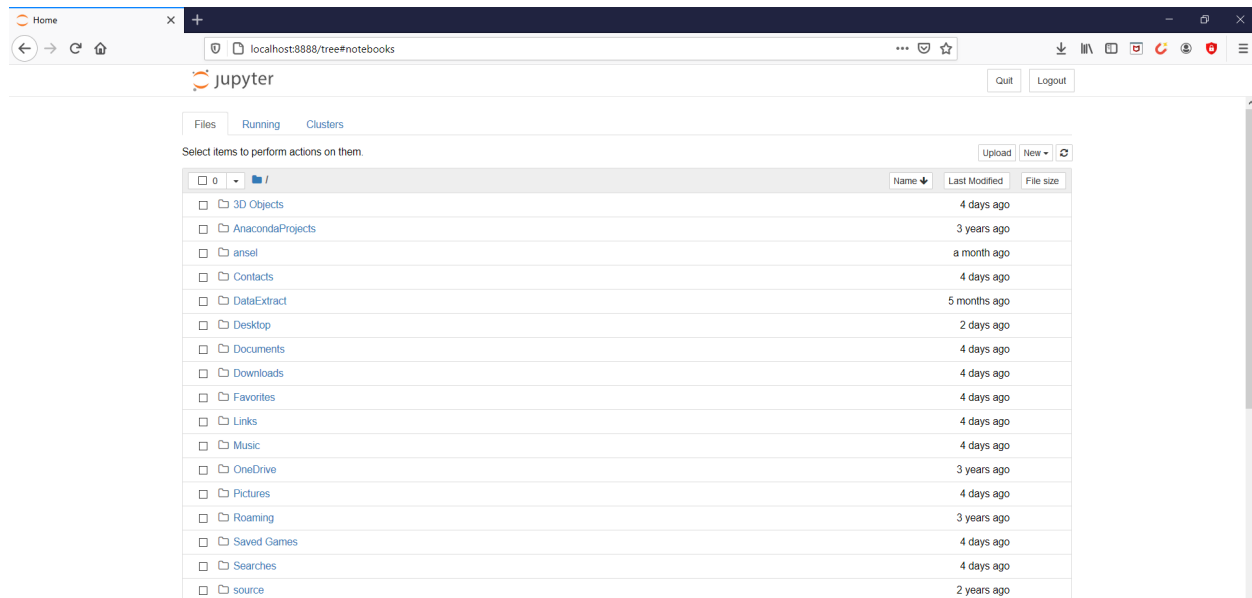


Figure 4: Jupyter window

2. Installing Gurobi

Gurobi is a commercial optimization solver. We will use it to solve various linear programs (LP). Here are the instructions to install gurobi and its license.

- A. First go to the website <https://pages.gurobi.com/registration>.
- B. Make an account on this webpage. Select **Academic User** and fill out other details. Click

on the confirmation email if needed.

Register for Free

Are you looking for a better optimization solver, with superior support, and a lower end-to-end cost than the leading alternatives? If so, you've come to the right place.

When you register for an account, you'll get:

- ✓ **Access to free Gurobi software** Academic users can download and install a free, full version license of Gurobi. Commercial users can request a no size limit evaluation version of Gurobi.
- ✓ **Notification of online webinars** We run free online webinars on a variety of topics that are of interest to our users.
- ✓ **Notification of product updates** We continuously enhance and improve our solver. You will receive timely notifications of available product updates and releases.

Please start your registration by designating your account type as either Commercial or Academic:

Are you an Academic or Commercial user?

First Name:

Last Name:

Company Email Address:

University:

Academic Position:

Phone Number:

Country:



Check this box if you also consult with commercial businesses: ☐

*Required: The information you provide to us will be used in accordance with the terms of our [Privacy Policy](#).

Access Now

Figure 5: Gurobi registration

- C. Click on the link <https://www.gurobi.com/login/> and login into your account.
- D. Now go to the website <https://www.gurobi.com/downloads/>. Click on **Gurobi Optimizer** and the click on **I accept the end user license agreement**. Download the installer for appropriate OS and processor.
- E. Go to the download location and double click the msi installer. Click **Next**, check the user agreement and click **Next**, **Install** and **Finish**.
- F. Now go to <https://www.gurobi.com/downloads/end-user-license-agreement-academic/>. Click on **I accept these conditions**. Scroll down and copy the license key (See Figure 6 below)
- G. Now go to command prompt (Go to start menu and type cmd and hit enter). Paste the key and hit enter. You may need to type "y" and press enter.
- H. To install the python package **gurobipy**, open command line and change your directory to the Gurobi installation directory by using command `cd C:\gurobi800\win64`. Now type `python setup.py install`



Host ID	
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Installation

To install this license on a computer where Gurobi Optimizer is installed, copy and paste the following command to the Start/Run menu (Windows only) or a command/terminal prompt (any system):

```
gurobikey -u kumar372@umn.edu -l
```

The `gurobikey` command requires an active internet connection. If your computer has no internet access, or you get no response or an error message such as "Unable to contact key server", [Please click here for additional instructions](#).

Figure 6: Gurobi license