

# Install Python with the Anaconda Distribution

A big source of confusion for beginners is how to download and install Python. There are a lot of options for installing Python. From barebones to full-featured. But there's one that's clearly the best.

But first, you should know about Python "distributions."

Python is an ecosystem. At its core, you have the barebones programming language. This sets up all the machinery to actually run Python and build programs on your computer. The next circle contains the packages which are prebuilt by other people.

Packages extend Python's basic functionality.

For example, if you want to plot a normal distribution, you'd have to write a couple of dozen lines of code with fancy mathematics to do it. Or you can install a package like NumPy that has the code already built, import it, and use it in one line of code.

That's the power of Python.

A "distribution" is the combination of the core Python programming language and a selection of packages bundled together. So instead of installing the core Python programming language, then installing 250 of your favorite packages, just install a distribution and you get the packages built in.

So what's the best Python distribution?

The Anaconda Distribution.

Anaconda is a one-stop-shop for scientific Python and it comes with a lot of tools for using Python.

There are 5 major benefits to using Anaconda:

1. **Comes with 250 packages.** Packages for web scraping (Beautiful Soup), interacting with AWS (boto3), and manipulating data come pre-installed (pandas).

2. **Comes with Jupyter Notebook installed.** Jupyter Notebook makes it easy to keep your code, documentation, and equations together in a transparent, web-based notebook.
3. **Comes with a built-in environment manager.** Conda easily creates, saves, loads, and switches between environments on your local computer (more on this later).
4. **Comes with a web-based UI.** Anaconda Navigator is a UI that makes it easy to manage environments and packages without using the command line.
5. **Comes with a built-in package manager.** Conda quickly installs, runs, and updates packages and their dependencies.

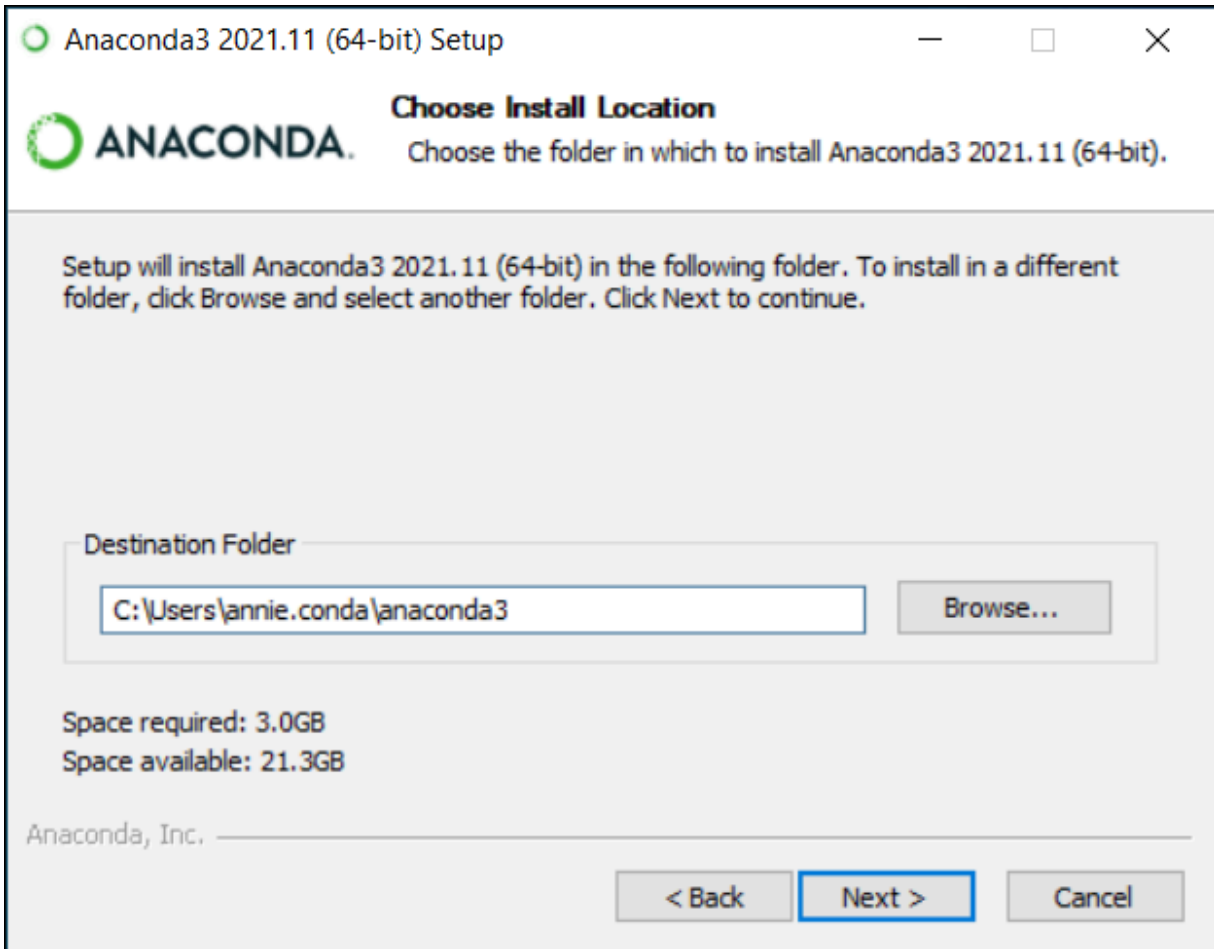
And the best part?

It's free.

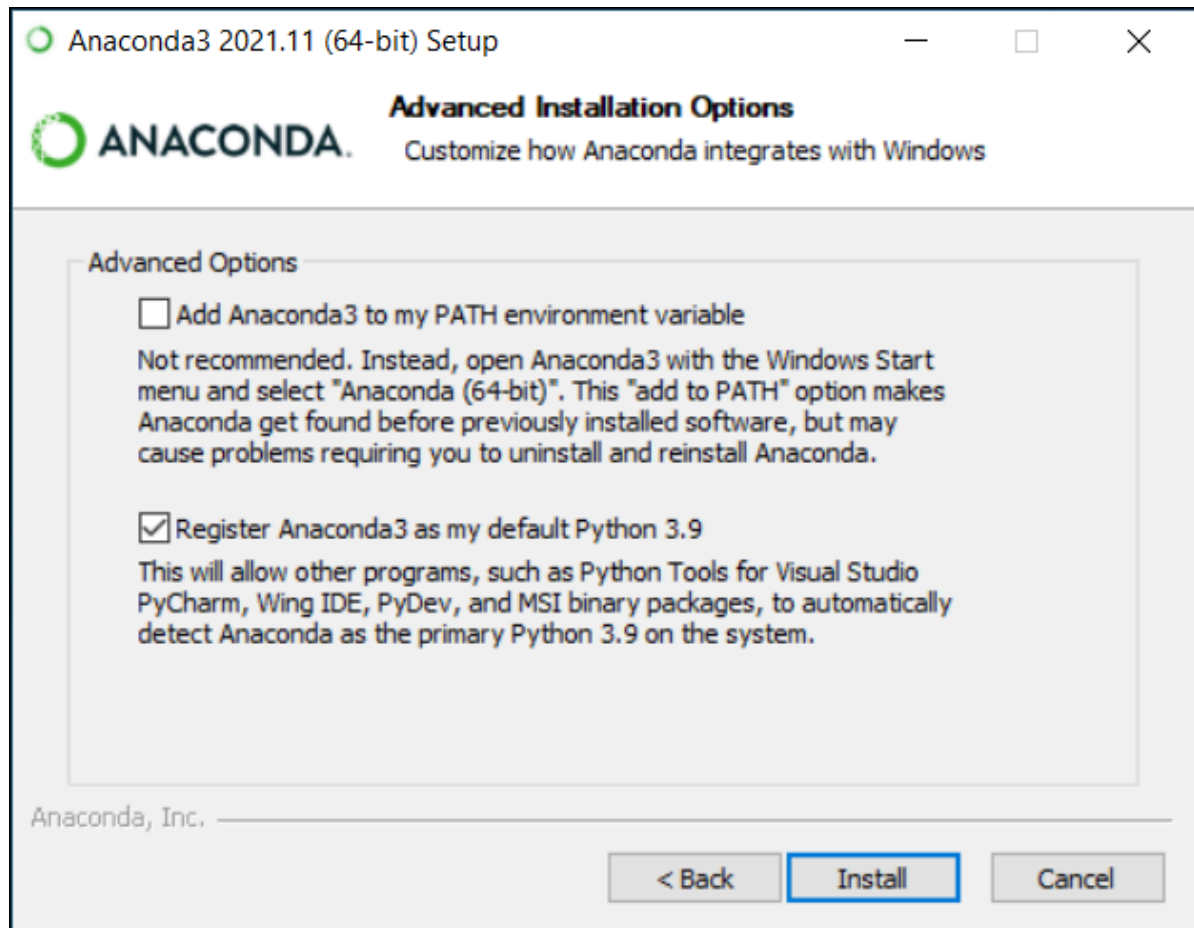
If you run into trouble, [post a message in the Course Help space](#).

## Install on Windows

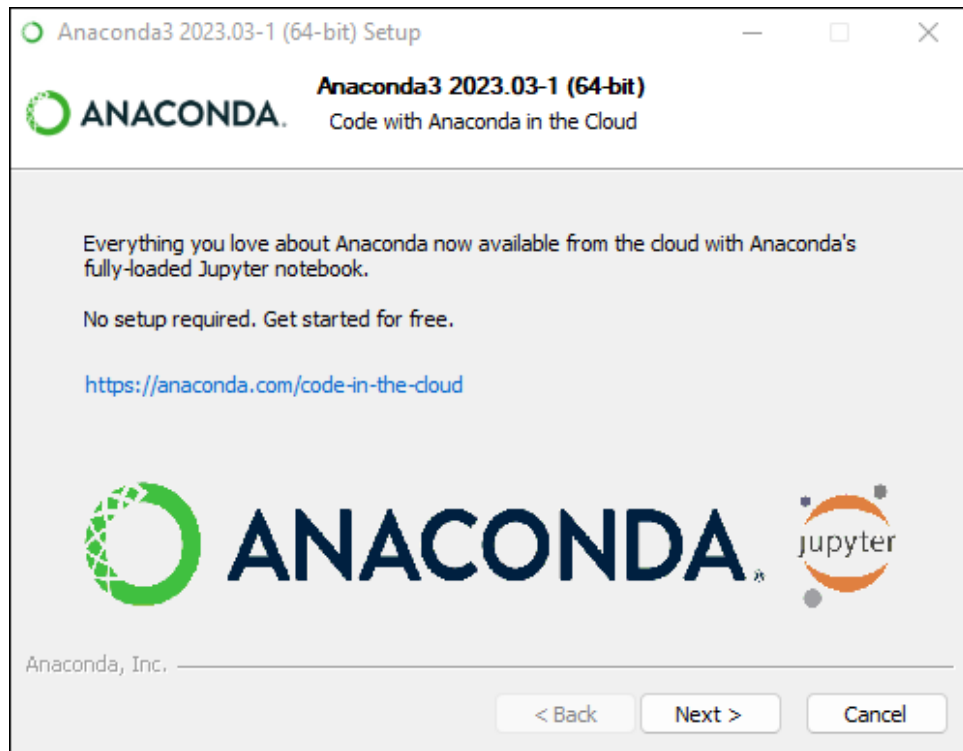
1. Download the [Anaconda installer](#).
2. Go to your Downloads folder and double-click the installer to launch. To prevent permission errors, do not launch the installer from the [Favorites folder](#).
3. Click **Next**.
4. Read the licensing terms and click **I Agree**.
5. It is recommended that you install for **Just Me**, which will install Anaconda Distribution to just the current user account. Only select an install for **All Users** if you need to install for all users' accounts on the computer (which requires Windows Administrator privileges).
6. Click **Next**.
7. Select a destination folder to install Anaconda and click **Next**. Install Anaconda to a directory path that does not contain spaces or unicode characters. For more information on destination folders, see the [FAQ](#).



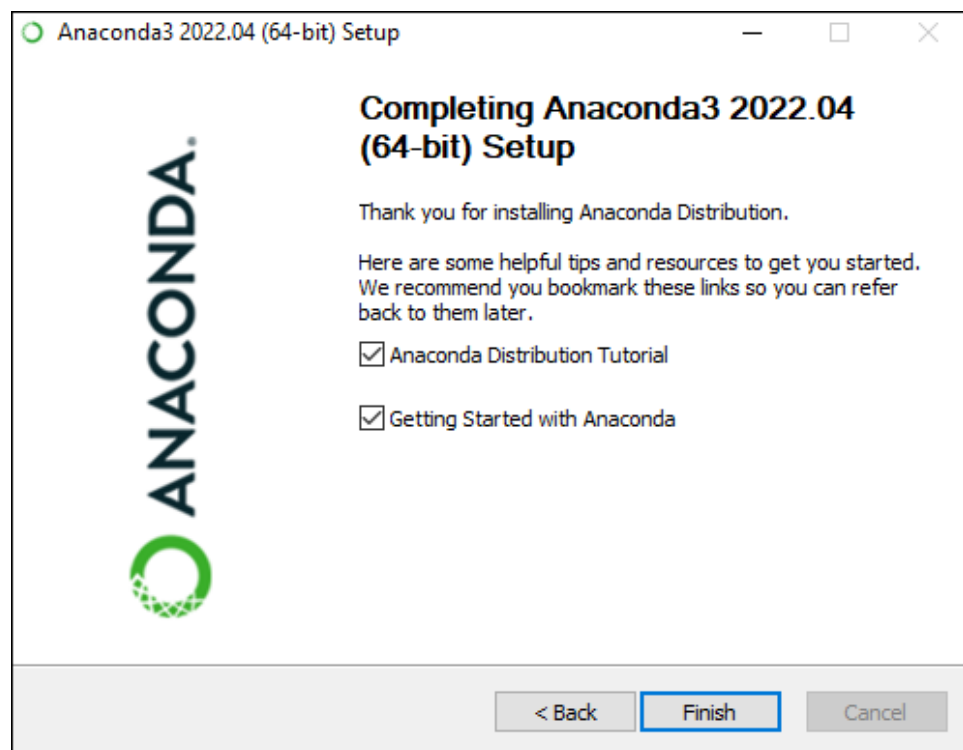
8. Choose whether to add Anaconda to your PATH environment variable or register Anaconda as your default Python. Accept the default and leave this box checked. Instead, use Anaconda software by opening Anaconda Navigator or the Anaconda Prompt from the Start Menu.



9. Click **Install**. If you want to watch the packages Anaconda is installing, click Show Details.
10. Click **Next**.



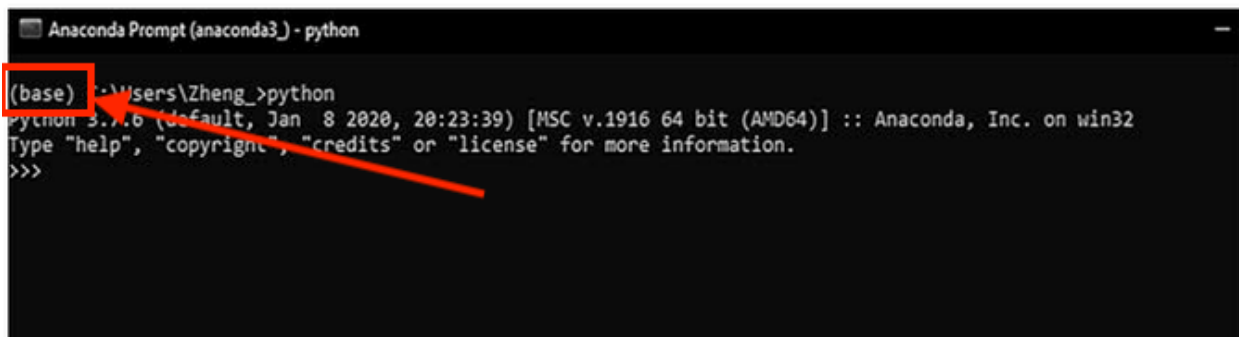
11. After a successful installation you will see the "Thanks for installing Anaconda" dialog box:



## To open the Anaconda Prompt follow these instructions:

1. Click on the Start menu or press the Windows key on your keyboard.
2. In the search box, start typing "Anaconda Prompt". As you type, the search will list the Anaconda Prompt application.
3. Locate and click on the "Anaconda Prompt" from the search results to open it. This action launches a command-line interface specific to Anaconda.
4. Make sure you open the Anaconda Prompt and not the PowerShell prompt. The Anaconda Prompt is specifically configured for Anaconda and Python, with the necessary paths and environment variables set up.

You should see (base) before your user name in the terminal window.



```
Anaconda Prompt (anaconda3) - python
(base) C:\Users\Zheng_>python
python 3.7.6 (default, Jan 8 2020, 20:23:39) [MSC v.1916 64 bit (AMD64)] :: Anaconda, Inc. on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

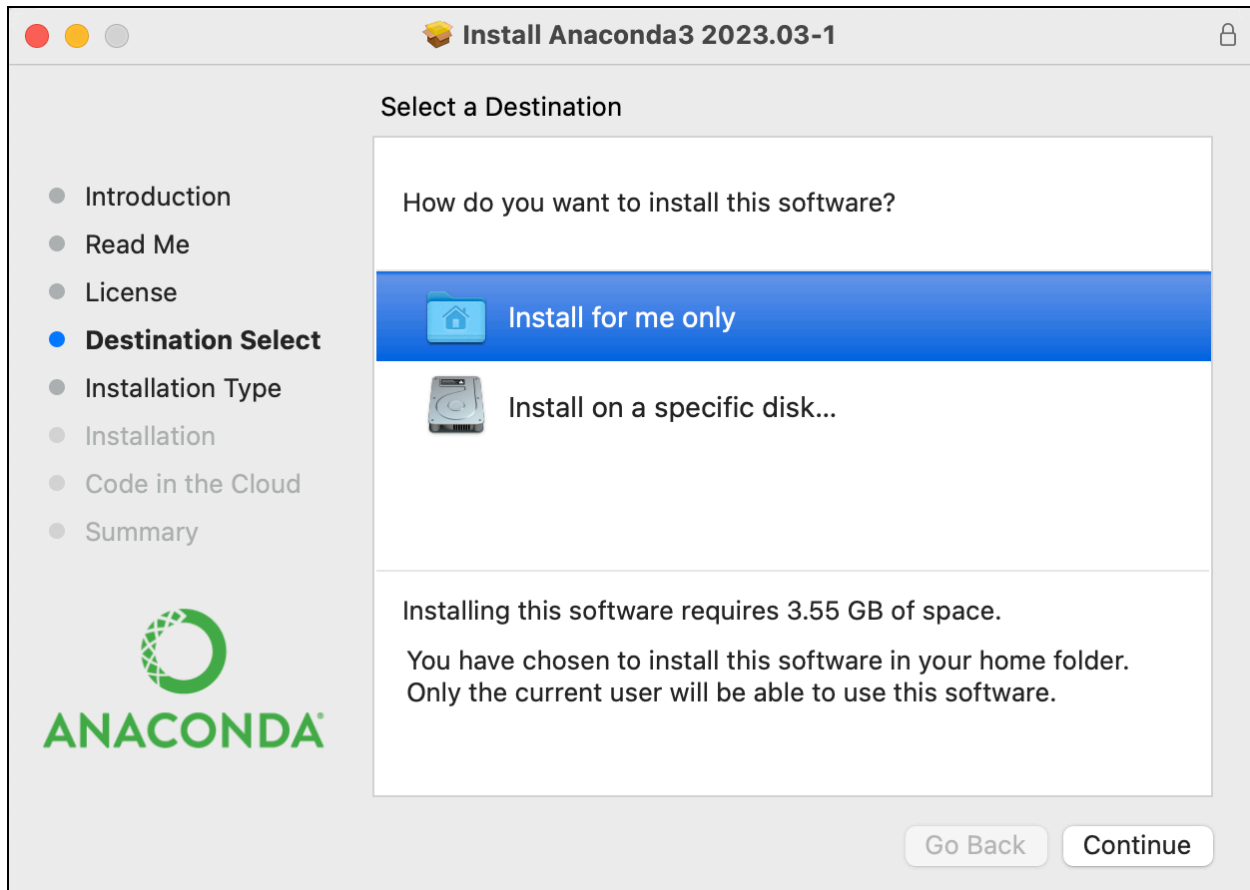
Type **conda list**. If Anaconda is installed and working, this will display a list of installed packages and their versions.

## Installing on macOS

1. Download the graphical [macOS installer](#) for your version of Python.
2. Double-click the downloaded file and click **Continue** to start the installation.
3. Answer the prompts on the Introduction, Read Me, and License screens.
4. Anaconda recommends that you choose **Install for me only**. If you do not want to install Anaconda Distribution into your home folder, select **Install on a specific disk....**

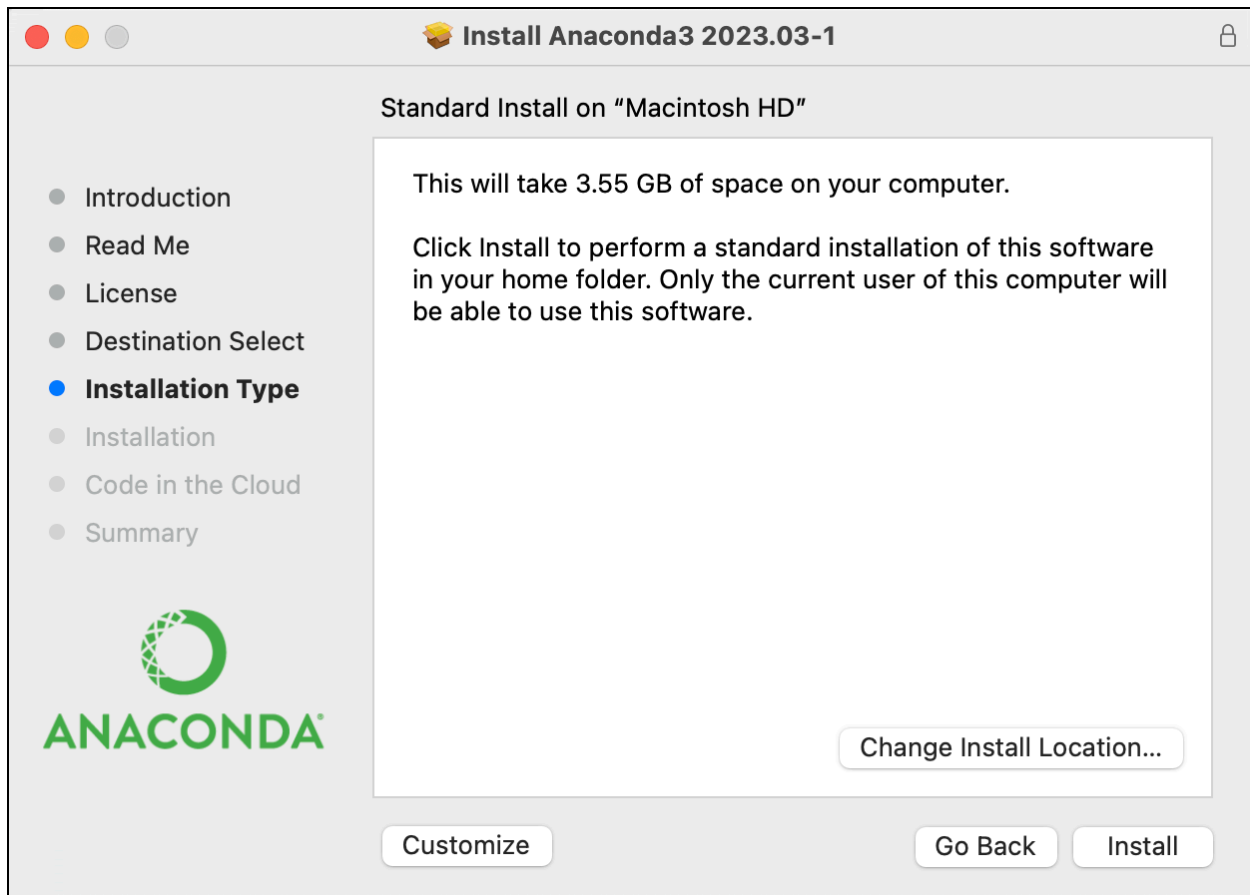
The installer may skip the Destination Select page during installation, which will cause the installation to fail. If the installer skips this page, click Change Install

Location... on the Installation Type page to get to this step.



If you get the error message "You cannot install Anaconda in this location," reselect Install for me only.

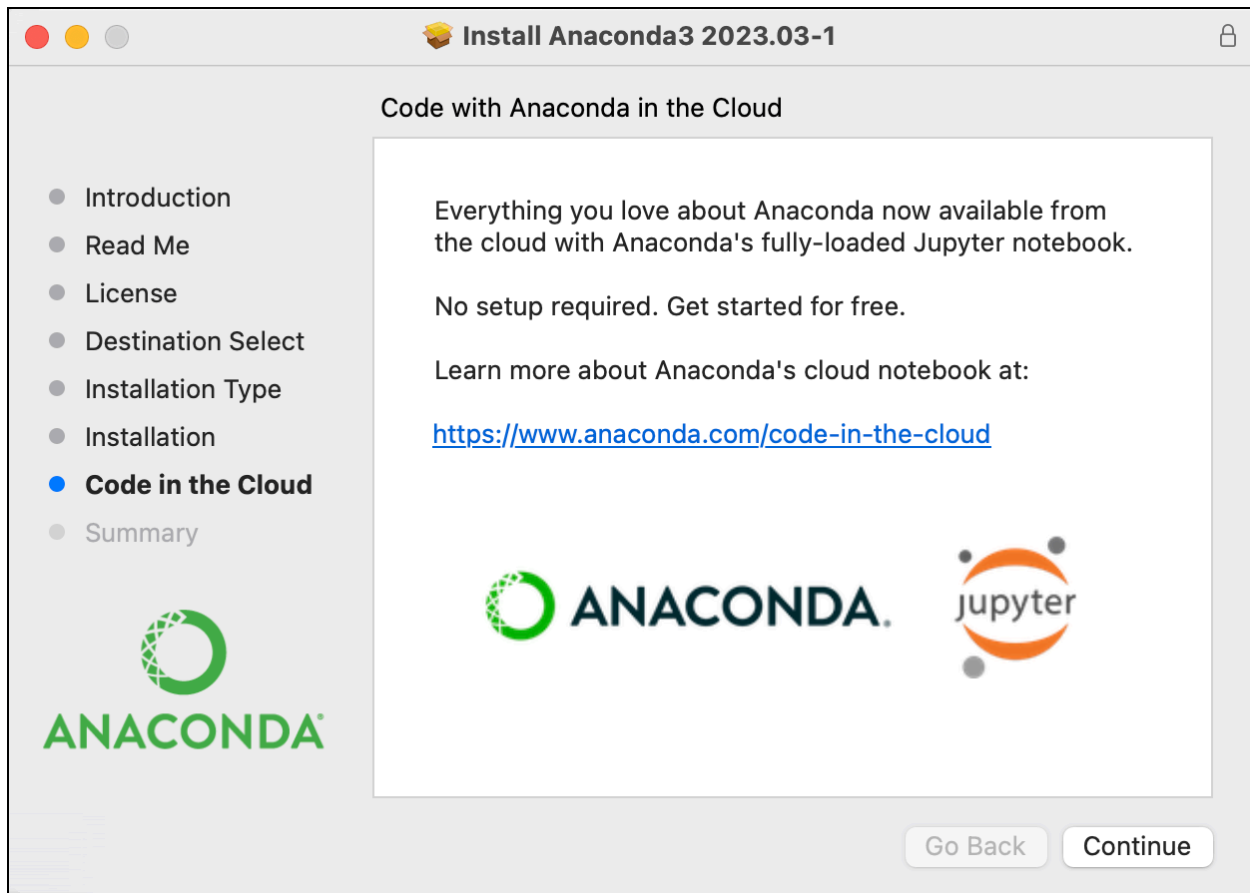
5. Click **Install**.



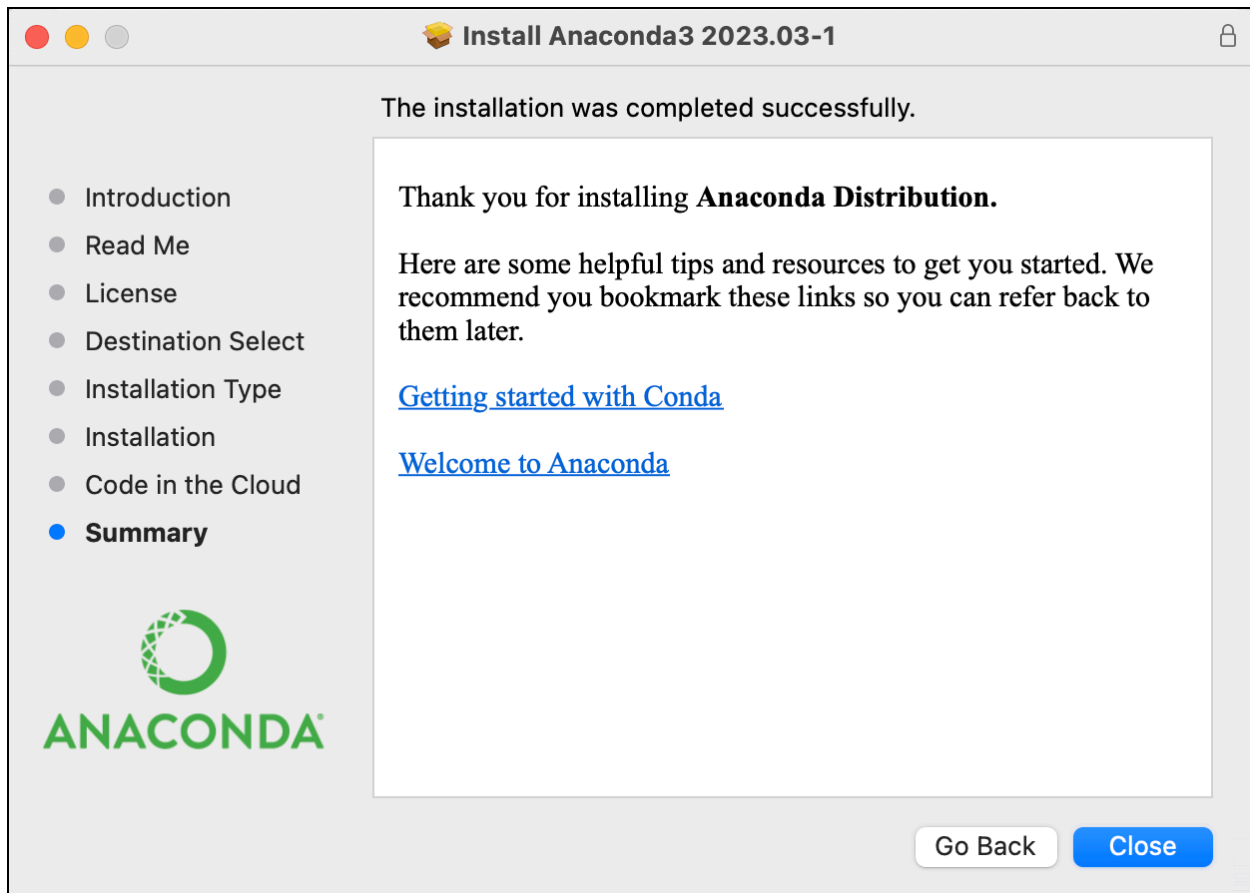
If you get the error message "This package is incompatible with this version of macOS," please see [here](#) for troubleshooting help.

6. Once the install is complete, click **Continue**.





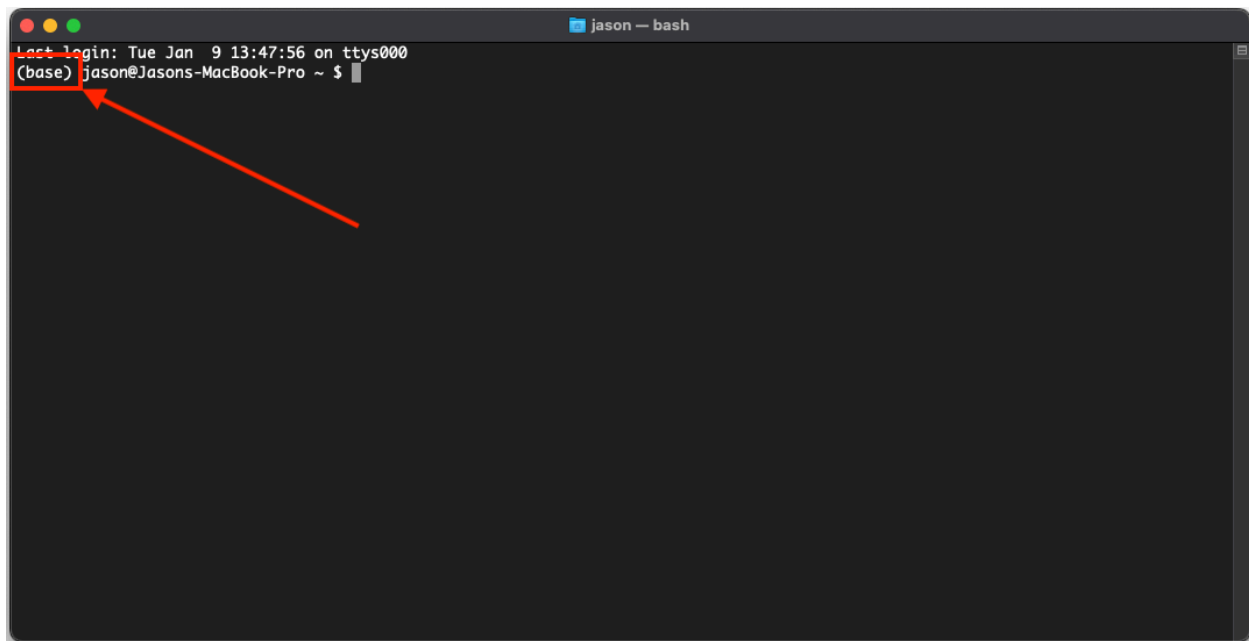
7. A successful installation displays the following screen:



To open the Anaconda Prompt follow these instructions:

1. Use **Cmd+Space** to open Spotlight Search.
2. Type **terminal** and open the terminal window.

You should see (base) before your user name in the terminal window.

A terminal window titled 'jason — bash' with a dark background. The prompt is '(base) jason@Jasons-MacBook-Pro ~ \$'. Above the prompt, it says 'Last login: Tue Jan 9 13:47:56 on ttys000'. A red box highlights the '(base)' part of the prompt, and a red arrow points from it towards the text below.

```
Last login: Tue Jan 9 13:47:56 on ttys000
(base) jason@Jasons-MacBook-Pro ~ $
```

Type ***conda list***. If Anaconda is installed and working, this will display a list of installed packages and their versions.

## Installing on Linux

For instructions to install the Anaconda distribution for your Linux architecture, follow the step-by-step instructions [here](#).