

Dive into Python: Essential Tutorial Series for Ocean and Climate Researchers

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PYTHON-CLASSES

Target Audience:

- Bachelors students/ Masters Students/ Ph.D students
- Researchers involved in coastal upwelling, mesoscale eddies, climate future projections (CMIP5, CMIP6), Physical-Biogeochemical modelling

Getting Started with Python: Installation Guide for Windows and Linux

Python is a powerful, versatile, and beginner-friendly programming language that has gained immense popularity over the years. Whether you're looking to dive into data science, web development, or automation, Python is a great choice. In this guide, we will walk you through the process of installing Python and Jupyter Lab on both Windows and Linux operating systems, so you can start your Python journey.

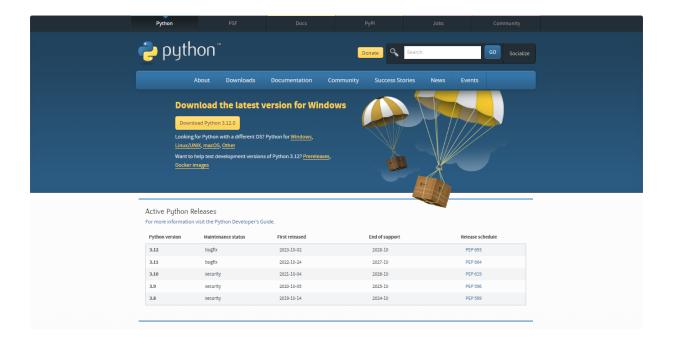
Prerequisite: Internet connection and Windows 8 or earlier

Windows

Let's install Python3 on Windows

STEP 1. Visit the Python Website:

- Go to the official Python website at https://www.python.org/.
- Click on the "Downloads" tab.



STEP 2. Download Python3 Installer:

- Scroll down to find the latest version of Python3 for Windows.
- Choose the installer that matches your system (usually a 64-bit version is preferred).
 - Click on the download link to start the download.

STEP 3. Run the Installer:

- Once the installer is downloaded, double-click on the executable file (.exe).
- Check the box that says "Install launcher for all users"

- Check the box that says "**Add Python x.x to PATH**" during the installation.
- Click **Install Now** to complete the normal installation.

STEP 4. Verify the Installation:

- Press Windows key + r and type cmd and click OK OR Go to **start** and enter cmd
- A command prompt will open and type:

```
python --version
```

OR

python -V

You should see your default Python version.

But, Sometimes, you won't be able to see your python3 version, in that case you need to type the following command to verify your python3 version:

python3 --version

Lets install Jupyter Lab on Windows

STEP 1. Install Jupyter Lab:

- Open a command prompt or terminal.
- Type the following command and press Enter:

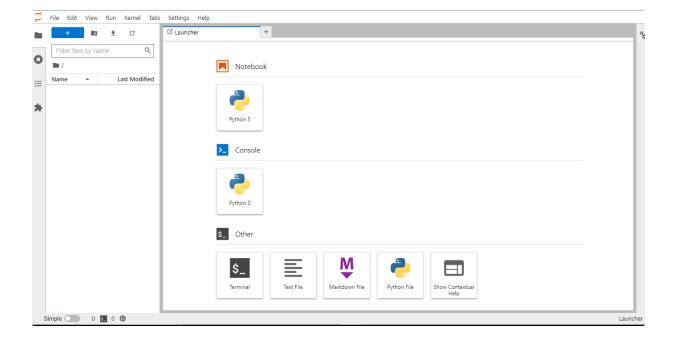
pip install jupyterlab

STEP 2. Launch Jupyter Lab:

- In the command prompt or terminal enter.

```
jupyter lab
```

- Jupyter Lab will open in your default web browser.



Linux

Lets install Python on Linux

Most Linux distributions come with Python pre-installed. To check if it's already installed, open a terminal and type:

```
python --version
```

OR

```
python -V
```

If Python is not installed or you want to install a specific version, follow these steps:

STEP 1. Open Terminal:

- Open a terminal on your Linux distribution.

STEP 2. Install Python:

- Use the package manager specific to your distribution (e.g., apt for Ubuntu, dnf for Fedora, or pacman for Arch Linux) to install Python. For example:
 - Ubuntu/Debian:

```
sudo apt-get install python3
```

- Fedora:

sudo dnf install python3

STEP 3. Verify the Installation:

python --version

OR

python -V

- Type `python -version` to verify the Python installation.

Lets install Jupyter Lab on Linux

STEP 1. Open Terminal:

- Open a terminal on your Linux distribution.

STEP 2. Install Jupyter Lab:

- Use the package manager to install Jupyter Lab. For example:
- Ubuntu/Debian:

```
sudo apt-get install jupyter
```

- Fedora:

sudo dnf install jupyter-notebook

STEP 3. Launch Jupyter Lab:

- In the terminal enter.

jupyter lab

- Jupyter Lab will open in your default web browser.

Conclusion

With Python and Jupyter Lab successfully installed on your Windows or Linux system, you are ready to explore the world of Python programming and data analysis. Now you can start coding, creating projects, and taking advantage of the vast ecosystem of Python libraries.

Cheers!

Happy coding!

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Great way to start



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