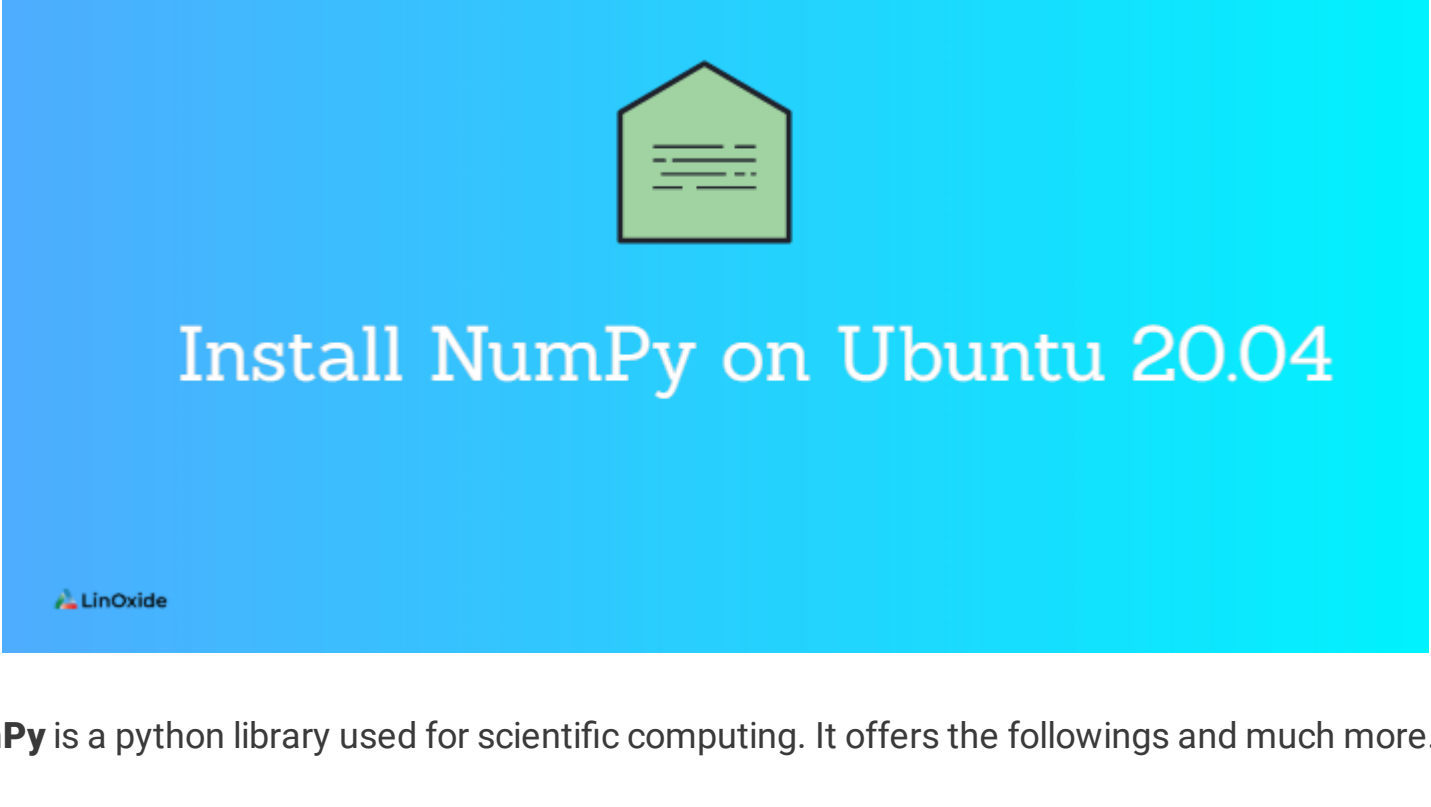


How to Install NumPy on Ubuntu 20.04

By [Oltjano Terpollari](#) | Updated March 16, 2021 | [Tutorials](#)



NumPy is a python library used for scientific computing. It offers the followings and much more.

- multidimensional array object
- masked arrays and matrices
- shape manipulation
- sorting
- selecting
- discrete Fourier transforms
- basic linear algebra
- basic statistical operations
- random simulation

In this tutorial we learn how to **install NumPy** on **Ubuntu 20.04**.

Install pip on Ubuntu

Pip is the official tool for managing python packages. It helps to install, uninstall and upgrade a specific package to the latest version. Developers find this utility very useful when it comes to installing the whole package dependencies of a project.

Download pip for **python 2** using wget command:

```
$ wget https://bootstrap.pypa.io/2.7/get-pip.py -O get-pip27.py
```

Now to Install pip run the following command:

```
$ sudo python2 get-pip27.py
```

As for the installation of **pip for python3**, the process is the same.

Download the script for pip:

```
$ wget https://bootstrap.pypa.io/get-pip.py -O get-pip.py
```

To Install pip for python 3, type:

```
$ sudo python3.9 get-pip.py
```

Install NumPy on Ubuntu

The pip utility helps to **install NumPy** for both versions of python. As for the python 2.x version, the following command installs the NumPy package.

```
$ python2 -m pip install numpy
```

The **-m** option helps to use a specific python package; in our case pip.

On success, the following should be displayed on your console.

```
Collecting numpy
  Downloading numpy-1.16.6-cp27-cp27mu-manylinux1_x86_64.whl (17.0 MB)
    | 17.0 MB 12.2 MB/s
Installing collected packages: numpy
WARNING: The scripts f2py, f2py2 and f2py2.7 are installed in '/home/linuxide/.local'
Consider adding this directory to PATH or, if you prefer to suppress this warning,
Successfully installed numpy-1.16.6
```

For the installation of numpy on python 3, run the following command.

```
$ python3.9 -m pip install numpy
```

Verify the installation.

```
$ python3.9 -m pip show numpy
```

The option **show** helps to identify an installed python package.

```
linuxide@ubuntu:~$ python3.9 -m pip show numpy
Name: numpy
Version: 1.20.0
Summary: NumPy is the fundamental package for array computing with Python.
Home-page: https://www.numpy.org
Author: Travis E. Oliphant et al.
Author-email: None
License: BSD
Location: /home/linuxide/.local/lib/python3.9/site-packages
Requires:
Required-by:
linuxide@ubuntu:~$
```

numpy package for python3

```
$ python2 -m pip show numpy
```

Import numpy from the python interactive shell

The following command imports the library under the name of np. It works both for python 2 and python 3.

```
import numpy as np
```

```
linuxide@ubuntu:~$ python3.9
Python 3.9.1 (default, Jan 30 2021, 04:45:04)
[GCC 9.3.0] on linux
Type "help", "copyright", "credits" or "license()" for more information.
>>> import numpy as np
>>>
```

Import numpy

Upgrade NumPy to the latest version

The pip utility has an option that helps to **upgrade** an installed package to the latest version.

To upgrade numpy for python 2, type:

```
$ pip2 install --upgrade numpy
```

For python 3 run the following command:

```
$ pip3 install --upgrade numpy
```

Final thoughts

Through this article, you learned how to properly install the numpy package for both python 2 and python 3. You also learned how to upgrade the numpy package to the latest version.

Python

Ubuntu

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C138

February 15, 2021 at 12:26 pm

What about :
apt install -s python3-numpy -t focal
...
Inst python3-numpy (1:1.17.4-5ubuntu3 Ubuntu:20.04/focal [amd64])

??

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Bobbin Zachariah

February 15, 2021 at 11:56 pm

That will install a pre-compiled binary package, which could be a slightly older version. Installation via pip help to get newer files and optimized with compilation flags.

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