The Most Useful Python Packages For Developers

Python has a large number of packages that allow you to implement a wide range of capabilities, such as converting images to various formats, testing code, creating multidimensional arrays, and much more.

In this article, I've collected 15 useful Python packages, which will help you create much more complex date and time programs, solve algebraic equations, work with complex datasets, and more. `(Source: hongkiat)`

1. TensorFlow 18

TensorFlow is a software library or framework developed by the Google team to make machine learning and deep learning concepts as simple as possible.

However, the TensorFlow symbolic math library is one of the most widely used Python machine learning libraries.

The TensorFlow library allows you to write new algorithms that include many tensor operations. Since neural networks can be expressed as computational graphs, they can be easily implemented using the TensorFlow library as a sequence of tensor operations.

2. Pendulum 7

If you have Python programming experience, you probably know that you can use the datetime module to manipulate dates and times in your application. But this module is only good for basic work, with the Pendulum package you can create much more complex programs related to the use of date and time.

Best of all, Pendulum is developed to replace datetime. That is, if you have ready-made code written using the datetime module, you can safely connect Pendulum.

Usually, everything will continue to work great without any code changes, and you will receive additional functionality that simply does not exist in the good old datetime.

3. Plotly 4

Plotly is another well-known Python data visualization package. It provides us with interactive graphs that allow us to explore the relationship of variables.

Plotly is used in statistics, finance, economics, and science. Plotly differs from all other data visualization packages by having much more advanced capabilities for creating 3D graphics.

4. Requests 4

Requests is based on the most downloaded Python library urllib3. Requests makes web requests as simple as possible while still being extremely versatile.

5. NumPy 1

Basic mathematical operations can be performed without any additional packages. But if you do some more complex calculations, the NumPy package will greatly facilitate your programming life.

NumPy provides tools for creating multidimensional arrays and performing calculations on the data stored in those arrays. You can solve algebraic equations, perform common statistical operations, and more.

NumPy is a very useful Python package for a wide variety of programming tasks, but it is especially important if you are going to do machine learning, as it underlies libraries such as TensorFlow.

6. Pyglet

A multi-platform framing and multimedia library for Python, PYGLET is a popular name for game development using Python. In addition to games, the library is designed to create visually rich applications.

Besides cropping support, PYGLET supports loading images and videos, playing sounds and music, OpenGL graphics, and handling UI events.

7. Pillow 1

This library is suitable for creating thumbnails, converting to various formats, applying filters, rotating and displaying images, etc. Pillow is ideal for batch processing large numbers of images.

8. Pandas 1

Pandas is one of the most important Python packages built for working with complex datasets. It helps you work with large datasets and analyze them without learning any special language for data processing.

The possibilities of Pandas are of course not limitless. It is not intended for complex statistical modeling (in which case you should still learn R or use another Python package like statsmodels). However, if you need to process time series data or perform statistical analysis on a dataset, Pandas can help you.

9. Matplotlib

Matplotlib is the most famous Python data visualization package. It could probably be included in a set of main packages that anyone using Python in the data science field needs to master. It supports many standard tools for visualizing data represented by various graphs and charts.

This package can work in conjunction with other Python packages. It also supports an API that allows you to embed the graphics it creates into a variety of applications.

10. Keras

Keras is a neural network library in Python. Aims to work quickly with deep learning networks, while being designed to be compact, modular, and extensible.

In addition to providing a simpler mechanism for expressing neural networks, Keras conjointly offers a number of the simplest options for compiling visualizing graphs, process datasets, and models.

11. JMESPath

It is a pleasure to work with JSON in Python, as it displays beautifully in a Python dictionary. Additionally, Python comes with its own library for generating and parsing, or disassembling JSON. JMESPath makes working with JSON in Python even easier.

12. Pytest 1

Regardless of the complexity of your project, new code needs to be tested anyway. The Pytest package provides many modules to help you do this. Pytest helps you write both a simple unit test and a more complex functional one.

13. Bokeh 2

Bokeh is a package for visualizing data in web applications. It can be easily integrated with any Python framework like Flask or Django. It supports many kinds of charts. This package is easy and convenient to use. In particular, we are talking about the fact that you can create interactive graphics with it by writing just a few lines of code.

14. Tkinter

This framework is most commonly used to create a graphical user interface (GUI). It ties Python to a TK GUI library that runs on literally every modern operating system.

15. MoviePy 8

MoviePy is a package designed to work with video. It has enough features for the most common tasks related to importing, modifying and exporting video files. It also allows you to add titles and rotate videos 90 degrees.