Theory: Introduction to Python

4 minutes 3 / 8 problems solved

Start practicing

§1. What is Python?

Python is a modern general-purpose programming language initially developed by a Dutch programmer named Guido van Rossum in the late 1980s. The name comes from the popular Monty Python show, not the snake as you might think. This language has a clean, uniform and well-readable syntax and is **designed to be easy to learn and use in practice**.

Nowadays, Python is one of the most popular programming languages worldwide according to the TIOBE index and the number of programmers who use it is growing every day. The language has a huge community of developers around the world. If you have a problem, you can always ask other programmers for help or find a suitable answer on a site like Stack Overflow.

Developing software with Python is easy and fun :)

The Python logo

Python has a wide range of possible applications, especially in:

- web development
- data science (including machine learning)
- scripting (task automation, e.g. text processing or a simulation of typical user actions)

Less commonly, it is also used in **desktop development**.

§2. Python in data science

Python's huge popularity in recent years is mostly due to its use in data science. What makes it better than other languages for this purpose? Well, there're a number of reasons:

- its simple syntax allows people from non-programming backgrounds to use it for data processing and model training without spending much time learning a new language;
- Python supports a very large number of third-party libraries for machine learning, neural networks, statistics, and numeric calculations, which makes your job much easier;
- with Python, it is possible to collect, clean, and explore data, as well as train models and visualize the results — all in one setting;
- the Python ML developer's community is very large, so you can always find support for your tasks.

As you can see, Python does have a lot to offer for data science enthusiasts.

§3. Short history of Python

Like other programming languages, Python has gone through a number of versions. Python 1.0 was released in 1994 and laid the basic principles of the language with emphasis on simplicity.

Current topic:

Introduction to Python Stage 1 18

Topic is required for:

Overview of the basic program Stage 1 18

Intro to Machine Learning

Table of contents:

↑ Introduction to Python

§1. What is Python?

§2. Python in data science

§3. Short history of Python

§4. First program example

Feedback & Comments

Python 2.0 was released in 2000. This version has become very popular among programmers. Different 2.x subversions (2.6, 2.7) are still used in various projects and libraries. The symbol **x** in 2.x means any subversion of Python 2.

Python 3.0 was the next major version released in 2008. It broke backward compatibility with its predecessors in order to rid the language of historic clutter and make Python more readable and consistent.

So, today two similar but incompatible versions of Python are commonly in use. **Throughout this course, we will learn Python 3.x**.

§4. First program example

Here is a single line of Python code that prints `Learn Python to be great!`.

```
print("Learn Python to be great!")
```

Now, you do not need to understand how this code works, just start to appreciate the syntax looking like English :)

Report a typo

😍 Thanks for your feedback!

Start practicing

Comments (95) Hints (0) Useful links (6) Show discussion