Why is Python a 'must learn' programming language for data scientists in the 4.0 era?

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Since 1950, the world has witnessed the emergence of countless different programming languages, many of which become the foundation for the development of the current software world such as JAVA, C, C ++. , Python or C # . all languages ??are designed to serve different purposes. As a result, a lot of great software applications were born and many complex problems were solved. But as we step into the future, the war for programming languages ??is also heating up, with a clearer differentiation between the concepts of 'modern' and 'outdated'.

We live in the era of digital data. Data is used in all areas, such as application design, to bring new services and ultimately help businesses understand customers in a better way. This fact spawned a new profession called Data Science and these professionals are data scientists. At the same time, it also requires an appropriate programming language, keeping up with the general development speed.

Python

Data science

With the abundance of data, every organization wants to draw insights from it. For example, businesses want to measure progress, make informed decisions, plan for the future and deliver effective products at low cost. To do that, the only solution is to dive into huge data sources and try to understand what they mean - the work of data scientists. They are the people responsible for processing, analyzing and organizing data using scientific methods, algorithms and related techniques. On a daily basis, the job of a data scientist is to sift through a large number of data sets, extract what's important and ultimately provide businesses with insights to put it into

practice and Make important decisions in business.

Insights from data are the reason behind major innovations that change industries in general. However, raw data can sometimes be a nightmare for data scientists. They need an efficient and simple set of programming tools to do their job.

Python and Data Science

4.0 technology fields such as machine learning, artificial intelligence and predictive analytics, data science are making more and more progress every day, and become the driving force of human development. All of these technologies are based on an indispensable 'material': Data. Data can be cluttered, missing values, inconsistent formats, incorrectly formatted, and full of meaningless exceptions in practice. To collect and 'clean up' data, data scientists need to understand and understand at least 1-2 programming languages. Although there may be many tools to support this work, Python is considered to be the most sensible choice.

It can be said that the Python language is at the peak of its popularity. Developers and researchers are using this language in a variety of tasks. This could be designing an enterprise application, training data using ML models (machine learning), designing advanced software, or selecting and sorting data. There is currently no other language better than Python.

Statistics show that Python is officially the most widely used programming language in the world today. It has beaten JAVA, the language most popular with developers worldwide, for the longest time. The 'dynamic' nature and a great library with features available for almost everything Python makes it a popular choice for developers and organizations.

Why Python is suitable for Data Science

Open source

One of the biggest advantages of Python is open source. This means that anyone can contribute to the existing functions of Python. In fact, organizations will come up with a separate framework and function that will help them accomplish their goals faster, while also helping other developers share the platform. Data scientists often need to combine statistical code into a production database or integrate existing data with web-based applications. In addition, they also need to implement algorithms daily. Python makes all of these tasks a little less confusing for data scientists.

Easy to grasp

One of the features that make Python more attractive is its ease of learning, getting used to, and practicing. Whether you are a beginner in the field of data science or good experts, anyone can learn Python and its new libraries without investing as much time and resources as most. Other programming languages Busy professionals often don't have much time to start learning a new programming language, which makes Python's readability and understandability even more useful. Even when compared to other data science languages ??like R and MATLAB, Python is considered to be easier to learn.

Extraordinary scalability

Python proved really superior when it comes to scalability. It is much faster than languages ??like MATLAB, R and Stata, allowing data scientists and researchers to approach a problem in many ways, instead of just sticking to a specific approach. Believe it or not, scalability is why YouTube chose to move their processes to Python.

The data science library

Python's data science libraries make this language a 'push' for data scientists. From Numpy, Scipy, StatsModels and sci-kit-learn, Python has been and will continue to add data science libraries to its collection. Thanks to that, in the eyes of data scientists, Python is a powerful programming language that can meet most of their needs and help solve seemingly impossible problems first.

These are all the reasons why Python is the perfect companion for data scientists. What do you think about this statement?