THE BIGGEST REASON IS BECAUSE I WANT TO VENTURE INTO DATA ANALYTICS AND MOST COMPANIES REQUIRE KNOWLEDGE OF PYTHON MORE THAN JAVA

WHY PYTHON OVER JAVA

* because of its ease of use and simple syntax which makes it easy to adopt for people who do not have an engineering background
* because it is easy to use for beginners.
* It is easy to understand the reason behind it — Python remains one of the most sought-after skills that these companies are looking for in data science and analytics professionals.
* In terms of application areas, ML scientists prefer Python as well. When it comes to areas like building fraud detection algorithms and network security, developers leaned towards Java; while for applications like natural language processing (NLP) and sentiment analysis, developers opted for Python, due to the wide collection of libraries that comes with it.

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| **Parameters** | **Java** | **Python** |
| Agility/Portability | Extremely popular for mobile and web applications. Suitable for Desktop GUI apps, embedded systems, and web application services. | Favored for Artificial Intelligence, machine learning, and Internet of Things. Ideal for scientific and numeric com puting functions. |
| Code | Very lengthy and verbose. It requires ten lines of code just to read from a Java file. | Efficient. Requires just two lines of code to read from a Python file. |
| Language Type | Object-oriented programming language. Compiled language. | Scripting language. Interpreted language. |
| Learning Curve | Comparatively harder than Python, more significant learning curve. | Easy to learn, shorter learning curve. |
| Legacy | Has a long history in enterprise. Java legacy systems usually are more extensive and more numerous. | Has less legacy baggage, although it’s the older of the two languages, released in 1991. |
| Speed | Since it’s a compiled language, it takes less time to execute code, making Java faster. | Python is comparatively slower because it’s an interpreted language that determines the data type at run time. |
| Static or Dynamic | Statically typed | Dynamically typed |

Data scientists often work with [Artificial Intelligence and machine learning](https://www.simplilearn.com/importance-of-machine-learning-for-data-scientists-article), two rapidly growing disciplines, and Python works best for both.

Java is excellent if you’re designing web pages, but if you’re a data scientist working with thinking machines or automated functions, you need to use Python. These [programming language usage statistics](https://businessoverbroadway.com/2019/01/13/programming-languages-most-used-and-recommended-by-data-scientists/?ref=hackernoon.com) among data scientists reinforce the point.

* It’s good for web development. Yes, Java reigns supreme with web developers, but Python is also a great choice, making it a good tool with enough versatility for both Data Scientists and web developers. Consequently, if a data scientist wants to try their hand at web development, they don’t have to learn another programming language — Python has them covered! There are also many libraries and full-stack frameworks dedicated to web applications, considerably speeding up coding and making the entire development process more efficient. Here are some better-known full-stack frameworks for Python:

o   Django

o   Pyramid

o   TurboGears

o   Web2py

* It has lots of libraries. Python has a vast collection of hundreds of time-saving libraries and frameworks. Many of Python’s libraries focus on machine learning, big data, and data analytics. These libraries include NumPy, Pandas, and SciPy.
* Python is scalable. Scalability means flexibility, a trait that data science needs. Python offers programmers more options for problem-solving, usually involving new updates that are easily added in.

Python has a large community. Extensive user communities are helpful because they provide advice, answers, workarounds, and new patches or content. Communities like [Stackoverflow](https://stackoverflow.com/questions/tagged/python?sort=newest) offer support for fellow Python users.

Professionals working in the data science domain- be it [data scientists](https://www.projectpro.io/article/how-to-learn-data-science-from-scratch-on-your-own-in-2021/420), machine learning engineers, or [data analysts](https://www.projectpro.io/article/data-analyst-salary-2021-based-on-different-factors/422) don't want to be bogged with a programming language that has complex syntax and limited libraries for handling large volumes of data when applying complex computations and calculations. This is the major reason Python has shown itself to be a prevalent choice for Data Science. There are always new data science and machine learning [libraries](https://www.projectpro.io/data-science-in-python-tutorial/pandas-introductory-tutorial-part-1) rolled out to meet different [data science requirements](https://www.projectpro.io/article/what-does-a-data-scientist-do/173).