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The Competition (Cont.)

Scala

Scala is a Java-based programming language that's becoming increasingly popular, especially for large-scale machine learning. Scala also incorporates JavaScript, so it's a combination of functional and object-oriented programming. One of Scala's main benefits is its ability to work with real-time data, as many technologies that work with data streaming (like Spark) are also built on Java.

Is Scala worth learning? Yes! But once again, much like Java, it has a steeper learning curve and requires users to be fluent in a range of foundational programming concepts. Python, by contrast, is much simpler to get started with and is a more user-friendly language for hands-on programming. Another benefit of Python is that, once you've learned it, you can easily extend that knowledge to teach yourself other languages like Scala.

MatLab, SAS, SPSS

MatLab is an older language used for complex statistical programming. Unfortunately, it is also a closed language and requires an expensive license. MatLab has a strong foothold in research and academia and is somewhat popular within niche fields such as image recognition and signal processing. However, because of its closed environment and limited community, for our purposes it's less useful than Python.

You may have also heard of SAS or SPSS. Like MatLab, these are expensive, closed environments that can be used for statistical modeling and data analysis. While they offer various benefits for large organizations who use them as part of a cohesive environment, they don't play nicely with others. Plus, many companies that have used them in the past are switching over to Python for its lower costs, interoperability, and a broader range of new talent.

Julia

Julia is a newcomer, but it's fast, expressive, and doesn't have a steep learning curve. It also offers some nifty visualization options, among other features. But, because it's so new, it has yet to be broadly adopted, whereas Python can be found in many different fields and industries.

We'll focus on Python in order to learn foundational programming elements and provide you with a tool you can use to run your own data science projects from start to finish. However



