

## These Programming Languages Are Making a Major Comeback

Developers are discovering hidden uses of once-popular programming languages or simply rediscovering some of their greatest features. These developers are proving that just because a programming language may have lost its luster, it still might have great potential. In our search for the latest and greatest, however, we often throw the baby out with the bathwater. Lest we forget the programming languages and paradigms of yesteryear. Developers are discovering hidden uses of once-popular languages or simply rediscovering some of their greatest features. These developers are proving that just because a language may have lost its luster, it still might have great potential. The best software developers have a way of finding value in places no one else is looking.

As developers, we are constantly looking for new and better ways to do things. Whether it's an elegant, optimized piece of code or a feature-rich API we can share with fellow developers and engineers, there's always something exciting and unexpected happening.

As an interpreted, high-level, dynamically typed, <u>multi-paradigm language Ruby</u> is somewhat hard to define. In many ways, this is what has contributed to its lower ranking via the TIOBE which ranks programming languages based on trending usage. Ruby is capable of just about anything and programmers coming from Perl or Python should be able to pick it up while still being surprised by its features.

**Ruby** is object-oriented but is also capable of general functional programming which makes it unique amongst its peers. Its use has increased in recent years for reasons the designer of Ruby himself, Yukihiro Matsumoto, has described it as making programming fun. Now a somewhat ubiquitous skill, programming is commonly known as a laborious task without much flexibility.

Years ago, Ruby was created to tackle that very problem and to make coding fun again for people who had become accustomed to the skill but were no longer feeling inspired. Its popularity is well deserved and shows no signs of slowing down as more of the best software developers turn to Ruby to make coding fun and productive.

R is a formidable programming language that has surged in popularity for reasons that range from Covid research to statistical accuracy as the race for AI continues.

For the majority of the past ten years, <u>Python has led the industry in data science</u> as the primary language but R has recently usurped its reign through new usage from universities and laboratories around the world. R was originally designed by Ihaka and Gentleman in 1993 as an S data archive implementation that gained popularity through S news mailing lists.

Later, in 1995 a statistician named Martin Machler would convince Ihaka and Gentleman to make the R implementation open-source under the GNU. Once that happened it immediately experienced a meteoric rise in popularity that rivaled the most ambitious languages. Its success can be linked to a few defining features that make it stand out from the rest of the crowd. R is capable of natively producing high-quality statistical graphics and is capable of incredible statistical accuracy.

These features, in addition to its over 18,000 libraries and 100 mirrors, make R an invaluable tool for <u>data scientists and general programmers</u>. Some would say it was only a matter of time but no matter the reason R is experiencing an incredible comeback surge.

## **Conclusion**

While data structures and algorithms stay fairly constant, high-level programming languages are constantly in flux. Which programming languages we tend to use depend on the popular architectures, frameworks, and APIs out at the time.

Codebases before the 1980s and the advent of object-oriented languages were unwieldy. C and its predecessors became the <u>most popular programming languages</u> in the wake of this new idea of encapsulation and reuse. Now we are seeing a similar shift from monolithic architectures to lightweight cloud-native microservices. As such, languages like Python are rising up the ranks.