

JAMES GOSLING

2019 Fellow

For the conception, design, and implementation of the Java programming language.

James Arthur Gosling was born in 1956 near Calgary, Alberta. He received his BS in computer science from the University of Calgary in 1977. For graduate work, he left Canada for Carnegie Mellon University (CMU), where he completed a PhD in 1983. At CMU, Gosling developed a variant on the popular display editor *Emacs* and wrote a version of the UNIX operating system for multiprocessor computer systems. One of his more significant efforts at CMU was porting UCSD Pascal p-code from a PERQ workstation to run on a DEC VAX computer system by writing a VAX emulator. When later working on the Sun Java project, Gosling cited this early work as inspiration for the concept of a Java virtual machine, one that would allow code written once to run on multiple platforms by allowing programmers to always code for the same virtual machine.

Gosling began his 26-year career at Sun when he was recruited by Sun cofounder Andy Bechtolsheim in 1984. An early project, done by Gosling and colleague David Rosenthal was the windowing system called SunDew, later renamed NeWS, the Network-extensible Windows System. NeWS was designed to work with bitmapped displays on workstations and was meant to be used across hardware platforms and operating systems but was ultimately abandoned in favor of X-Windows.

In June 1991, Gosling, Mike Sheridan, and Patrick Naughton initiated the Java language project (called "The Green Project" at the time). This was a more formal outgrowth of an earlier project led by Sheridan to create a new programming language and environment for Sun beyond the C++ language then in wide use. While this new language would be aimed at computers, the notion, popular then, of the "digital convergence" of TVs, computers, telephones, set-top boxes, and other embedded systems reoriented the effort toward also controlling smart devices, such as appliances in the home. The initial language, called "Oak," was first demonstrated on September 2, 1992, in the form of a sophisticated handheld media controller, called Star-7, which used a graphical user interface and easy-to-follow "home" metaphor.

devices and is widely used in computer science education.

Gosling left Sun just after Oracle acquired the company in 2010, working briefly at Google and then at Liquid Robotics, a company making autonomous ocean-going robots used in oceanographic and atmospheric research. He joined Amazon Web Services as Distinguished Engineer in May 2017.

RELATED ARTICLES

CHM BLOG

Thinking about Machines and Thinking

January 28, 2021

CHM BLOG

Secrets In Our DNA

January 28, 2021

CHM BLOG

Tech for Social Impact

January 27, 2021

[View All](#)

SHARE



Mountain View, CA 94043
(650) 810-1010

MORE CONTACT INFO

PRESS

CAREERS

VENUE

EVENTS

STORIES

DONATE