



James A. Gosling – His
impact on the world of
Software Engineering

Background

James A. Gosling is a renowned Canadian software engineer, best known for inventing one of the most widely used programming languages of today, Java. Gosling grew up in a small town near Calgary in Alberta, Canada, born in 1955. At university level Gosling studied Computer Science and accomplished a Bachelor of Science degree from the University of Calgary. He then went on and furthered himself in the field of Computer Science and earned an M.A. and Ph.D. from Carnegie Mellon University. As a part of his Ph.D., Gosling wrote 'Gosmacs', a version of Emacs. He also developed a multi processor version of Unix along with several compilers and mail systems while at Carnegie Mellon (Edubilla.com, 2018).

Contribution to his Field

An excellent inventor for more than 30 years, Dr. Gosling accomplished a significant milestone with the invention of the Java programming language in 1995, and has since had an extensive influence on software engineering. James Gosling used his own ideas merged with leading ideas in various programming languages to develop the first comprehensively deployed programming language that was portable in nature and permitted the transmission of code over the Internet while maintaining a high security standard (Ethw.org, 2018). Gosling was elected to Foreign Associate member of the United States National Academy of Engineering for his role in developing the initial model of Java as well as the implementation of Java's original compiler and virtual machine. He has also made major contributions to several other software

systems, such as NeWS (Network extensible Window System). Co-writing the “bundle” program was another of Dr. Gosling’s major contributions, and is detailed in depth in Brian Kernighan and Rob Pike’s book *The Unix Programming Environment*. In 2007 because of his significant impact on the field of computers, he was awarded Canada’s highest civilian honour being made an Officer of the Order of Canada (Java-intellectual.blogspot.com, 2018). After being with Sun Microsystems for 26 years Gosling, left after they were acquired by Oracle as he was angered by pay reductions and the change in the ethical role of the company, on April 2, 2010. In March 2011, Gosling started to work at Google but his spell there proved to be very short lived when 6 months later, he followed his colleague Bill Vass and joined a start-up called Liquid Robotics. In late 2016, Boeing acquired Liquid Robotics and Gosling has since left to work as a Distinguished

Engineer at Amazon Web Services. James is known for his love of proving "the unknown" and has noted that his favourite irrational number is $\sqrt{2}$. He has a framed picture of the first 1,000 digits of $\sqrt{2}$ in his office (UpClosed, 2018).

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