

James Gosling

Subjects: Others

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Basic Information



Name: James Gosling
(May 1955–)

Birth	Near Calgary, Alberta, Canada
Location:	
Title:	Computer Scientist
Affiliation:	Unknown
Honors:	Officer of the Order of Canada IEEE John von Neumann Medal The Economist Innovation Award

1. Introduction

James Arthur Gosling, OC (born May 19, 1955) is a Canadian computer scientist, best known as the founder and lead designer behind the Java programming language.^[1]

2. Education and Career

James Gosling received a Bachelor of Science from the University of Calgary ^[2] and his M.A. and Ph.D. from Carnegie Mellon University, all in computer science.^{[3][4][5]} He wrote a version of Emacs called Gosling Emacs (Gosmacs) while working toward his doctorate. He built a multi-processor version of Unix for a 16-way computer system^[6] while at Carnegie Mellon University, before joining Sun Microsystems. He also developed several compilers and mail systems there.

Gosling was with Sun Microsystems between 1984 and 2010 (26 years). He is known as the father of the Java programming language.^{[7][8]} He got the idea for the Java VM while writing a program to port software from a PERQ by translating Perq Q-Code to VAX assembler and emulating the hardware. He left Sun Microsystems on April 2, 2010 after it was acquired by the Oracle Corporation,^[7] citing reductions in pay, status, and decision-making ability, along with change of role and ethical challenges.^[9] He has since taken a very critical stance towards Oracle in interviews, noting that "during the integration meetings between Sun and Oracle, where we were being grilled about the patent situation between Sun and Google, we could see the Oracle lawyer's eyes sparkle."^[8] He clarified his position during the Oracle v Google trial over Android: "While I have differences with Oracle, in this case, they are on the right. Google totally slimed Sun. We were all really disturbed, even Jonathan Schwartz; he just decided to put on a happy face and tried to turn lemons into lemonade, which annoyed a lot of folks on Sun."^[10] However, he approved of the court's ruling that APIs should not be copyrightable.^[11]

In March 2011, Gosling left Oracle to work at Google.^[12] Six months later, he followed his colleague Bill Vass and joined a startup called Liquid Robotics. In late 2016, Liquid Robotics was acquired by Boeing.^[13] Following the acquisition, Gosling left Liquid Robotics to work at Amazon Web Services as Distinguished Engineer in May 2017.^[14]

He is an adviser at the Scala company Lightbend,^[15] Independent Director at Jelastec,^[16] and Strategic Advisor for Eucalyptus,^[17] and is a board member of DIRT Environmental Solutions.^[18]

He is known for his love of proving "the unknown" and has noted that his favorite irrational number is $\sqrt{2}$. He has a framed picture of the first 1,000 digits of $\sqrt{2}$ in his office.^[19]

3. Contributions

Gosling initially became known as the author of Gosling Emacs, and also invented the windowing system NeWS, which lost out to X Window because Sun did not give it an open source license. He is generally credited with having invented the Java programming language in 1994.^{[20][21][22]} He created the original design of Java and implemented the language's original compiler and virtual machine.^[23] Gosling traces the origins of the approach to his early graduate-student days, when he created a p-code virtual machine for the lab's DEC VAX computer, so that his professor could run programs written in UCSD Pascal. In the work leading to Java at Sun, he saw that architecture-neutral execution for widely distributed programs could be achieved by implementing a similar philosophy: always program for the same virtual machine.^[24]

For his achievement, the National Academy of Engineering in the *United States* elected him as a Foreign Associate member.^[25] Another contribution of Gosling's was co-writing the "bundle" program, a utility thoroughly detailed in Brian Kernighan and Rob Pike's book *The Unix Programming Environment*.

4. Honors

- 2002: he was awarded *The Economist* Innovation Award.^[26]
- 2002: he was awarded *The Flame Award* USENIX Lifetime Achievement Award.^[27]
- 2007: he was made an Officer of the Order of Canada.^[28] The Order is Canada's second highest civilian honor. Officers are the second highest grade within the Order.
- 2013: he became a fellow of the Association for Computing Machinery.^[29]
- 2015: awarded IEEE John von Neumann Medal^[30]

5. Books

- Ken Arnold, James Gosling, David Holmes, *The Java Programming Language, Fourth Edition*, Addison-Wesley Professional, 2005, ISBN:0-321-34980-6
- James Gosling, Bill Joy, Guy L. Steele Jr., Gilad Bracha, *The Java Language Specification, Third Edition*, Addison-Wesley Professional, 2005, ISBN:0-321-24678-0
- Ken Arnold, James Gosling, David Holmes, *The Java Programming Language, Third Edition*, Addison-Wesley Professional, 2000, ISBN:0-201-70433-1
- James Gosling, Bill Joy, Guy L. Steele Jr., Gilad Bracha, *The Java Language Specification, Second Edition*, Addison-Wesley, 2000, ISBN:0-201-31008-2
- Gregory Bollella (Editor), Benjamin Brosgol, James Gosling, Peter Dibble, Steve Furr, David Hardin, Mark Turnbull, *The Real-Time Specification for Java*, Addison Wesley Longman, 2000, ISBN:0-201-70323-8
- Ken Arnold, James Gosling, *The Java programming language Second Edition*, Addison-Wesley, 1997, ISBN:0-201-31006-6
- Ken Arnold, James Gosling, *The Java programming language*, Addison-Wesley, 1996, ISBN:0-201-63455-4
- James Gosling, Bill Joy, Guy L. Steele Jr., *The Java Language Specification*, Addison Wesley Publishing Company, 1996, ISBN:0-201-63451-1
- James Gosling, Frank Yellin, The Java Team, *The Java Application Programming Interface, Volume 2: Window Toolkit and Applets*, Addison-Wesley, 1996, ISBN:0-201-63459-7
- James Gosling, Frank Yellin, The Java Team, *The Java Application Programming Interface, Volume 1: Core Packages*, Addison-Wesley, 1996, ISBN:0-201-63453-8
- James Gosling, Henry McGilton, *The Java language Environment: A white paper*, Sun Microsystems, 1996
- James Gosling, David S. H. Rosenthal, Michelle J. Arden, *The NeWS Book : An Introduction to the Network/Extensible Window System (Sun Technical Reference Library)*, Springer, 1989, ISBN:0-387-96915-2

References

1. "James Gosling - Computing History". <http://www.computinghistory.org.uk/det/1793/james-gosling/>.

2. "Archived copy". Archived from the original on 2015-06-01.
<https://web.archive.org/web/20150601031152/http://nighthacks.com/roller/jag/resource/bio.html>. Retrieved 2015-05-13.
3. James Gosling at the Mathematics Genealogy Project <https://www.genealogy.math.ndsu.nodak.edu/id.php?id=50143>
4. Gosling, James (1983). Algebraic Constraints (PhD thesis). Carnegie Mellon University.
<http://search.proquest.com/docview/303133100>
5. Phd Awards By Advisor. Cs.cmu.edu. Retrieved on 2013-07-17. <http://www.cs.cmu.edu/~alumni/advisor.html#G>
6. James Gosling mentioned a multiprocessor Unix in his statement during the US vs Microsoft Antitrust DOJ trial in 1998 "DOJ/Antitrust". Statement in MS Antitrust case. US DOJ. <http://www.usdoj.gov/atr/cases/f2000/2049.htm>. Retrieved 1 February 2007.
7. Guevin, Jennifer. (2010-04-10) Java co-creator James Gosi leaves Oracle. News.cnet.com. Retrieved on 2012-02-21.
http://news.cnet.com/8301-1001_3-20002207-92.html
8. Shankland, Stephen. (2011-03-28) Java founder James Gosling joins Google | Deep Tech – CNET News. News.cnet.com. Retrieved on 2012-02-21. http://news.cnet.com/8301-30685_3-20047787-264.html
9. Darryl K. Taft. (2010-09-22) Java Creator James Gosling: Why I Quit Oracle. eWEEK.com
<http://www.eweek.com/c/a/Application-Development/Java-Creator-James-Gosling-Why-I-Quit-Oracle-813517/>
10. My attitude on Oracle v Google. Nighthacks.com. Retrieved on 2016-05-17.
<http://nighthacks.com/jag/blog/393/index.html>
11. "Meltdown Averted". <http://nighthacks.com/jag/blog/397/index.html>.
12. Next Step on the Road. Nighthacks.com. Retrieved on 2016-05-17. <http://nighthacks.com/jag/blog/365/index.html>
13. "Boeing to Acquire Liquid Robotics to Enhance Autonomous Seabed-to-Space Information Services". December 6, 2016. <https://www.liquid-robotics.com/press-releases/boeing-to-acquire-liquid-robotics-to-enhance-autonomous-seabed-to-space-information-services/>.
14. Darrow, Barb (May 23, 2017). "Legendary Techie James Gosling Joins Amazon Web Services".
<http://fortune.com/2017/05/22/java-creator-james-gosling-joins-amazon-web-services/>. Retrieved 23 March 2018.
15. Typesafe — Company: Team. Typesafe.com. Retrieved on 2012-02-21. <http://typesafe.com/company/team>
16. James Gosling and Bruno Souza Join Jelastic as Advisers. InfoQ.com. Retrieved on 2014-11-24.
<http://www.infoq.com/news/2014/11/Gosling-and-Souza-Join-Jelastic>
17. Eucalyptus . Eucalyptus.com Retrieved on 2013-04-22 <http://www.eucalyptus.com/news/eucalyptus-appoints-dr-james-gosling-inventor-java-strategic-advisor>
18. "James Gosling". <https://www.dirtt.net/company/leadership/james-gosling>.
19. UserGroupsatGoogle (29 November 2010). "James Gosling on Apple, Apache, Google, Oracle and the Future of Java". YouTube. <https://www.youtube.com/watch?v=9ei-rbULWoA>. Retrieved 20 January 2018.
20. Allman, E. (2004). "Interview: A Conversation with James Gosling". Queue 2 (5): 24. doi:10.1145/1016998.1017013.
<https://dx.doi.org/10.1145%2F1016998.1017013>
21. Gosling, J. (1997). "The feel of Java". Computer 30 (6): 53–57. doi:10.1109/2.587548.
<https://dx.doi.org/10.1109%2F2.587548>
22. "Sun Labs-The First Five Years: The First Fifty Technical Reports. A Commemorative Issue". Ching-Chih Chang, Amy Hall, Jeanie Treichel. Sun Microsystems, Inc.. <http://portal.acm.org/citation.cfm?id=974955&dl=GUIDE&coll=GUIDE&CFID=75229392&CFTOKEN=55758856>. Retrieved 2010-02-07.
23. Gosling, James (2004-08-31). "A Conversation with James Gosling". ACM. <http://queue.acm.org/detail.cfm?id=1017013>. Retrieved 2014-07-03. "At Sun he is best known for creating the original design of Java and implementing its original compiler and virtual machine."
24. McMillan, W.W. (2011). "The soul of the virtual machine: Java's ability to run on many different kinds of computers grew out of software devised decades before". IEEE Spectrum 48 (7): 44–48. doi:10.1109/MSPEC.2011.5910448.
<https://dx.doi.org/10.1109%2FMSPEC.2011.5910448>
25. "NAE Members Directory – Dr. James Arthur Gosling". NAE.
<http://www.nae.edu/MembersSection/Directory20412/30859.aspx>. Retrieved March 29, 2011.
26. The 2002 Economist Innovation Award Winner . <http://www.economistconferences.co.uk/innovation/winners2002>
27. "Flame Award". 6 December 2011. <https://www.usenix.org/about/flame>. Retrieved 20 January 2018.

28. "Governor". <http://www.gg.ca/media/doc.asp?lang=e&DocID=4984>. Retrieved August 28, 2016. . February 20, 2007
 29. ACM Names Fellows for Computing Advances that Are Transforming Science and Society , Association for Computing Machinery, accessed 2013-12-10. <http://www.acm.org/press-room/news-releases/2013/fellows-2013>
 30. "IEEE JOHN VON NEUMANN MEDAL : RECIPIENTS" (PDF). http://www.ieee.org/documents/von_neumann_rl.pdf. Retrieved 20 January 2018.
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Retrieved from <https://encyclopedia.pub/entry/history/show/82075>