Linus Torvalds

Introduction

Linus Torvalds is one of the most influential software engineers of all time. His primary achievement – the creation of Linux and Git – have revolutionised the software engineering industry and are still at the forefront of computer science to this day. As an MSISS student, I am inspired by Torvalds' work on a couple of levels. Firstly, it's uses in my degree, specifically through Git, making sharing and updating code quick and simple. Secondly, Linux is still prevalent in devices today, with all android devices containing this software.

Early Life & Education

Linus Torvalds was born in Helsinki, Finland in 1969, to a family of journalists, with both of his parents and grandfather being journalists. He began studying Computer Science in the University of Helsinki in 1988, but his college studies were interrupted when he completed his mandatory 11-month training program in the Finnish Army, which ended in 1990. He graduated in 1996 with a master's in Computer Science. During his studies, he became familiar with Unix, an operating system which Linux is similar to. Torvalds liked the Unix operating system that the university PC's used, so he began programming his own Unix-like operating system for his personal PC. After months of hard work the beginnings of Linux were created, and with it the legacy of Torvalds began.

Career

Linux

Torvalds' development of the Linux kernel in 1991 (released in 1994) is seen as his greatest achievement. The system is not as user friendly as more conventional operating systems like Windows or MAC OS, however it is popular due to it's reliability – it rarely crashes.

One of the major developments in Linux came when Torvalds' added some utilities from the open-source GNU (also based on Unix, created by Richard Stallman) operating system to his Linux kernel creating the first complete system of Linux.

Torvalds' invited other developers to contribute to Linux by sharing the source code online. The open source nature of Linux has made it highly customisable for different uses – for example it is used for a large number of servers on the internet and is also used in phones, tablets and computers. This diversity in its uses is one of the main reasons that Linux has become so popular amongst developers.

Git

Git is by far the most popular version control system used by developers in the modern day. It was originally created by Torvalds in 2005 to aid the development of the Linux kernel, with other developers of the kernel helping with its original implementation.

Git has since been adopted by developers and companies worldwide for a plethora of projects. The ease with which one can share code and perform version control on their project makes it a necessity for developers, especially for those working in teams.

In recent years, sites like Github (created in 2008) have implemented Git into their programmes, making the use of Git more widespread in the software development community.

Awards

Linus Torvalds has been awarded numerous notable accolades throughout his distinguished career, most notably receiving the Millennium Technology Prize in 2012, which is sometimes seen as the technology equivalent of the Nobel Prize. This prize puts into perspective the widespread effect Torvalds' developments have had on the modern world, affecting almost everyone's lives. However, he began winning awards much earlier, winning an "Excellence in Programming" award in 1995, soon after the launch of Linux, according to the Linux Journal.

Conclusion

Before writing this essay, I held Linus Torvalds' programming mind and ability in very high regard. After researching his life and work further, I have even more respect for the work Torvalds has done, and the effect that it has on every person's life. Many of the day-to-day tasks I do are driven by Torvalds' work. The awards he has received and the far-reaching effect of his work are testament to his skill as a software engineer.

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