## A Biography of Linus Torvald

## Jingchen Zhang 15316376

Linus Benedict Torvalds is a Finnish-American software engineer who is the creator, and for a long time, principal developer of the Linux kernel. As almost any software engineer or even computer science enthusiast would know, it is the kernel for many crucial operating systems that people use on a regular basis, such as the Linux operating system, Android. And on top of that, perhaps even more significantly, the distributed revision control system Git was also created by Linus Torvalds for development of the Linux kernel. It is now without question the most popular version control tool across the world and is used by a majority of the most successful tech companies such as Google, Facebook and Microsoft.

Torvalds was born in Helsinki, Finland in 1969 and attended the University of Helsinki between 1988 and 1996 graduating with a master's degree in computer science. On January 5, 1991 he purchased an Intel 80386-based clone of IBM PC before receiving his MINIX copy, which in turn enabled him to begin work on Linux, The first prototypes of which were publicly released later that year under the GPL (GNU General Public License). This proved to be admitted by Torvalds as one of his best decisions, as it allowed anyone to study, use, modify, extend and redistribute the software as long as they make the source code freely available for any modified versions that they create and then redistribute. As a consequence, many programmers from around the world quickly became enthusiastic about helping Torvalds develop his still embryonic operating system. And as the performance of the Linux kernel and distributions continued to improve due to the rapidly growing number of developers joining the project, the number of users grew even faster. By 1997, conservative estimates were placing worldwide Linux installations at more than 3 million computers. Then two years later this had soared to over 7 million.

As its fame increased dramatically, major software companies started to take notice of its potential. Oracle, Intel, Netscape, Corel and others announced plans to support Linux as an inexpensive alternative to Microsoft Windows, as well as other corporations quickly adopting it for their Internet servers and networks. And as perhaps the most important of them all, in 2001 IBM announced the commitment of a billion dollars for Linux research, development and promotion. As a result of this level of corporate acceptance, Linux had eventually matured and became a force among operating systems suitable for almost everyone's needs. This phenomenal success is undoubtedly due in very large part to Torvalds' brilliance and dedication. Moreover, his personality has been ideally suited for his role as spiritual leader of the Linux movement, including his combination of self-deprecating humor and his far-from-unique philosophy that "life is simply about having a good time" rather than merely about accumulating vast wealth. His contribution to Linux was not as largely about its development (As of 2006, approximately two percent of the Linux kernel was written by Torvalds himself), as it was about his decision making and leadership.

The story of the creation of Git is a rather short one compared to Linux. Its development began in April 2005, after many developers of the Linux kernel gave up access to BitKeeper whose free use had been withdrawn by its copyright holder. Linus Torvalds wanted a distributed system that he could use like BitKeeper, but none of the available free systems met his needs, especially for performance. So immediately after the 2.6.12-rc2 Linux kernel development release, Torvalds set out to write his own system. Then in less than a year, he turned over maintenance of Git to Junio Hamano, a major contributor to the project.

For his work, Linus Torvalds received numerous awards and other kinds of achievements, including IEEE Computer Pioneer Award, inductee into the Internet Hall of Fame and Millennium Technology Prize.