## **Linus Benedict Torvalds**

Linus Torvalds is most commonly known as the brains behind the development of the Linux Kernel, however he is also well known as the creator of the GIT version control system. Linus' work on the development of the Linux Kernel has had a lasting impact on the world in the way computer information systems are built and handled. Many of the world's largest tech companies run their servers on Linux based operating systems, such as Facebook, Google and surprisingly Microsoft.

Regardless of his tremendous achievements, Linus Torvalds has always remained a seemingly humble man whose main focus in life has been to do things for fun and entertainment. As a matter of fact, following his success as a Software engineer Linus wrote his biography with the help of writer David Diamonds, suitably titled "Just for Fun". In the preface of the book, which highlights a discussion between Linus and David regarding the meaning of life, Linus says, "...in the end we're all here to have fun. We might as well sit down and relax and enjoy the ride."

Linus first began using computers at the age of 11 learning to program in BASIC and later in machine code. Soon after the release of the Sinclair QL he purchased one and began tinkering with its operating system, writing his own editor and assembler in addition to some games. It seemed Linus was a naturally gifted software engineer from the start, he in fact states in his biography that "..some of my earliest and happiest memories involve playing with my grandfather's old electronic calculator.", highlighting how whilst other kids might have been playing tag outdoors he was more fascinated with the inner workings of a computational machine.

At the age of 19 Torvalds attended the University of Helsinki where he graduated with a masters in Computer Science after 6 years of study. He then joined the Finnish army for a year, as military service was mandatory in Finland at the time, where he served as a ballistic calculation officer. He resumed his studies the following year which is when he was first introduced to UNIX and wrote his thesis titled 'Linux: A Portable Operating System'. Soon after this Linus went onto releasing the first prototypes of Linux in 1991, although the official first version was released in March 1994.

Although Linux is the most well known open source project, Linus Torvalds was actually not the one to come up with the idea, rather he was first introduced to the idea when he encountered the GNU Project in 1991. There he met a community of software engineers

intent on developing open-source software to allow users the ability to modify, improve and add to software whilst being able to redistribute it without infringing on any copyright laws. The principle behind it was to have a public collaboration around a software project which would be freely available to the public. Linus has taken this idea to heart with much of his work, recently stating on twitter, "Software is like sex: It's better when it's free."

Following the inception of the Linux Kernel, which was first released in 1994, Linus Torvalds has spent much of the following years up till this day working and improving the Linux Kernel system along with the community of contributors. In 2003 he moved to work for Open Source Development Labs, a non profit organization founded with the intention of accelerating the deployment of Linux for use in enterprises, its goal would be to be recognised as the 'centre of gravity' for the Linux industry. He still works for them to this day, maintaining the Linux Kernel, although it is now called the Linux Foundation after merging with with Free Standards Group.

Linus' work has earned him numerous prizes throughout his illustrious career. He has received prizes from Computer Science institutions such as the EFF early on and more recently from the IEEE(Institute of Electrical and Electronics Engineers) for his continued work and contribution to electronics technologies. In 2012 the Internet Society placed him in the 'Internet Hall of Fame' among ten other innovators and four years earlier he was inducted in the 'Hall of Fellows' by the Computer History Museum in California for his outstanding work on the Linux project. The scientific community has even recognised his achievements by naming both a moon 'Linus' in 2003 as well as an asteroid '9793 Torvalds' in 1996.

Linus Torvalds continues to contribute to society and the world of computer science through Linux, not only directly by working on improving the Kernel, but also indirectly by influencing the radical changes brought by Linux. From the drastically lower server expenses that Linux servers incur coupled with better performance and reliability, large institutions globally are able to maintain better systems more effectively and benefit the global computer using population as a whole. Linus' other creation, GIT, is the most used version control system by Software Engineers due to its ease of use whilst also allowing the users a variety of options in which to manage large scale projects.