Linus Torvalds

Linus Torvalds is a Finnish American software engineer who was born on 28th December 1969 in Helsinki. He is one of the most famous software engineers ever mostly due to being the principal developer of Linux kernel which is used in many operating systems such as the Linux operating systems, Android and Chrome OS. He is all responsible for designing Git, a distributed version control system which is widely used today among software engineers and programmers. He studied computer science in the University of Helsinki and graduated with a master's degree. In 1999 he was named by MIT Technology Review as one of the worlds top 100 innovators.

Torvalds first big project was designing the Linux kernel. A kernel is what runs a computers operating system. It has complete control over the system and is a crucial part of the operating system. It is what facilitates any interactions between the hardware and the software of the system. This was the basis for Linux operating systems. Torvalds studied UNIX in 1990 and this is what Linux is like. It is used in a wide variety of hardware such as phones and supercomputers. Android use Linux operating systems as well which is the operating system for Samsung and Huawei, two of the biggest phone companies in the world. This shows just how important Torvalds creation has become and how useful it is in the world of software engineers. Linux now has thousands of people writing code for it so Torvalds has only contributed 2% of the total code but that is a very large percentage compared to anyone else. He still controls what code gets added in and he also own the copyright for the brand Linux.

Torvalds is also responsible for designing Git. Git is an open source version control system and is run using Linux. It allows users to work together efficiently and alter code for projects of a small size or large-scale projects. Torvalds designed Git when they were unable to continue using their current control system, Bitkeeper. There were no other source control managements that were compatible with Linux's needs. Torvalds decided that he would design one that worked for him. Nowadays Git is one of the largest source control managements. Git serves as the basis for many services such as GitHub and GitLab. Git is a widely used program now as it provides programmers and software engineers an efficient way to work together on projects and store previous work.

Torvalds third big project was Subsurface. This was released in September 2011. It was software which allowed divers to log and plan scuba dives. It also uses Linux as its operating system so most of Torvalds success was by building on his first creation. Subsurface allowed divers to track their dive data and was compatible with many different makes and models of dive computers and allowed data to be represented in different forms.

Torvalds was the recipient of many awards during his life. The first being in 1996 when an asteroid was named after him. He received his masters degree in 1997 and 2 years later became an honorary doctor. From 1998 onward he started to receive many awards for his contributions to technology. He received the Electronic Frontier Foundation (EFF) pioneer award for his contribution in empowering individuals using computers. In 2000 he was awarded the Lovelace medal from the British Computer Society for his advancements in computing. He shared the Takeda award in 2001 with two others for Social/Economic Well-Being. In 2005 he won the Vollum award and in 2008 he was inducted into the Hall of Fellows of the Computer History Museum. In 2010 he received the NEC C&C Prize for his "outstanding" contribution to computers. He won two awards in 2012, the year after Subsurface was released. He won the Millennium Technology Prize alongside Shinya Yamanaka, which is one of the greatest honours one can receive in the technology industry. He was also inducted into the Internet Hall of Fame. In 2014 He was the recipient of the Institute of Electrical and Electronics Engineers (IEEE) computer pioneer award and the finally his most recent award was in 2018 when he received the IEEE Masuru Ibuka Consumer Electronics award "For his leadership of the development and proliferation of Linux." The majority of these awards were in my opinion mainly for his development of Linux as it became so big and so important in the technology world. Linux has been very successful and it is now used in many successful enterprises.

It is evident that Linus Torvalds has had a massive impact on the IT industry as a whole. Linux is a cheap but effective operating system which makes it very useful for any company, ranging from small to large. Linux and Git both revolutionized software development. There were control systems before Git but there were none that gave anywhere near as much collaboration options as Git. Torvalds still works at maintaining the Linux server. He reads and responds to reads and responds to emails sent to him by people who think they have ways to enhance or improve the current Linux code. He no longer works on Git. In fact, he only worked there for 6 months and when it was up and running, he went back to focusing on Linux. Linux rose to fame as it was a cheap alternative to windows and when Torvalds first posted the source code it meant anyone could change it to suit their needs. However Linux was harder to use than Windows or Apples operating system but was much cheaper and rarely crashed. It was also very easy to change the language of the code as anyone could view it and modify it. I believe Linus Torvalds is one of the most influential and important software engineers to ever have entered the industry. The progress he made and the systems he invented are crucial in the programming world and have helped to enhance and improve technology and will continue to do so in the coming years.

Bibliography

Fruhlinger, Z., 2020. *What Is Linux? The Open-Source Operating System That's Changing The World.* [online] Network World. Available at: <https://www.networkworld.com/article/3215226/what-is-linux-uses-featres-products-operating-systems.html> [Accessed 12 November 2020].

En.wikipedia.org. 2020. *Linus Torvalds.* [online] Available at: <https://en.wikipedia.org/wiki/Linus_Torvalds> [Accessed 12 November 2020].

Torvald, L., 1997. *Linux: A Portable Operating System.* Masters. University of Helsinki.

The Linux Foundation. 2020. *10 Years Of Git: An Interview With Git Creator Linus Torvalds - The Linux Foundation.* [online] Available at: <https://www.linuxfoundation.org/blog/2015/04/10-years-of-git-an-interview-with-git-creator-linus-torvalds/> [Accessed 12 November 2020].

En.wikipedia.org. 2020. *Subsurface (Software).* [online] Available at: <https://en.wikipedia.org/wiki/Subsurface_(software)> [Accessed 12 November 2020].

ComputerWeekly.com. 2020. *How Linux Has Influenced Modern IT.* [online] Available at: <https://www.computerweekly.com/news/450400639/How-Linux-has-influenced-modnern-IT> [Accessed 12 November 2020].