

# Linus Torvalds

Linus Torvalds was Finnish/American software engineer that is accredited with creating the Linux Kernel which is the Kernel for the GNU/Linux operating system. He also created the GIT version control system that is widely used today.

## Early Life

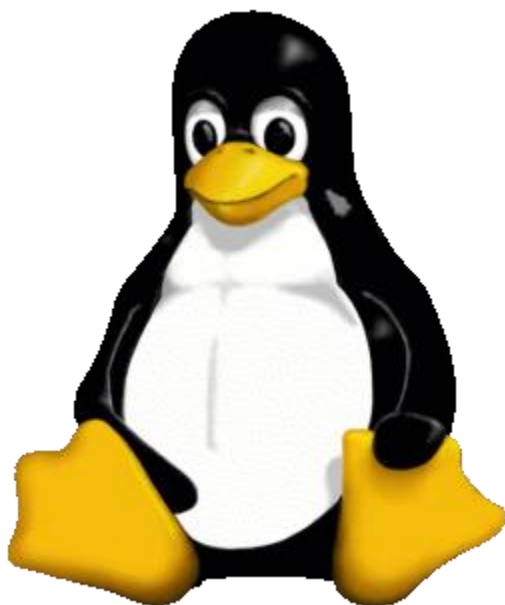
Linus Torvalds was born in Helsinki, Finland on the 28<sup>th</sup> of December 1969. His parents were the journalists Anna and Nils Torvalds. Torvalds became interested in computers at the age of 11 when we first started coding in BASIC and machine code on his Commodore VIC-20. He attended Helsinki University from 1988 to 1996 and graduated with a master's degree in computer science. In his first year of academic study he was interrupted by mandatory conscription into the Finnish army. His MSC thesis was based on "Linux; A portable Operating System".



Above is a more recent image of Linus Torvalds

## **Linux Operating System**

Linux is a family of operating systems that are like UNIX and are based on the Linux kernel. The Linux kernel was an operating system kernel created by Linus Torvalds in 1991. Linux consists of different distributions or flavours which are based on the Linux kernel which are optimised for specific uses for example Linux Kali is a distribution for ethical hacking and pen testing, Ubuntu is for learning the basics of Linux and having a nice graphics user interface. The most popular distributions of Linux are Debian, Ubuntu and Fedora. Since Linux is open source any one can release a distribution for any purpose. Linux was originally intended for personal computers but has expanded past many of its horizons into smartphones as android and servers that use the LAMP stack. LAMP stands for Linux, Apache MySQL and PHP which is a technology stack used to run servers. Linux also runs on embedded systems such as televisions, routers and smart home technology. Android is also based on the Linux kernel and takes up around 73% market share of the smartphone market. The mascot for Linux is Tux the penguin, the name of the penguin comes from Torvalds Unix. Linux supposedly chose Tux as the mascot for Linux after an encounter with one in an Australian zoo where the penguin nibbled on his finger.



**Above is the image of Tux the penguin who is the mascot for the Linux Brand.**

## **GIT Version Control System**

Git is a distributed version control system. It used to track changes in source code during software development. Git was created by Torvalds in 2005 to allow for more efficient work on the Linux kernel. Git is a free and open source software which is distributed under GNU public license. Git allows multiple software engineers to commit their work into a repository and merge it with the work of others without removing the work of others. Git also allows for branching and rollbacks in a repository also. Multiple companies have made use of git for their software development and they have also improved git in the process, one such company would be Microsoft. Microsoft created GitHub which is a website that allows for GUI for all your repositories and allows you to use the GUI instead of the git commands directly, other similar implementations would include Gitlab and Bitbucket.

## **Impact**

At the end of the day when all is said and done Linus Torvalds is known as one of the most influential software engineers of all time for his contributions of Linux and Git to computer science. Even in my case I can vouch that his contributions have directly impacted my work as a computer science student and more importantly a programmer. I am grateful that Linus created Git as I think Git has been very useful for my projects and I am grateful that he created the Linux kernel as it has allowed me and the future generation the use of multiple technological advancements for example smart phones, smart televisions, smart home systems. Torvalds impact is so great that anyone can build their own version of an operating system based on the Linux Kernel.

## **Conclusion**

In conclusion, there is no debate that Linus is one of the most influential software engineers of all time and always will remain so. I think the reason he is so influential is because of the reach that the Linux kernel has in our every day life and the fact that both Git and the Linux kernel are both open source means anyone can contribute towards them and anyone can access them as long as they have an internet connection.

## **Bibliography**

### **Linus Torvalds:**

[https://en.wikipedia.org/wiki/Linus\\_Torvalds](https://en.wikipedia.org/wiki/Linus_Torvalds)

<https://github.com/torvalds>

<https://www.linkedin.com/in/linustorvalds/>

[https://media.newyorker.com/photos/5ba177da9eb2f7420aadeb98/master/w\\_727,c\\_limit/Cohen-Linus-Torvalds.jpg](https://media.newyorker.com/photos/5ba177da9eb2f7420aadeb98/master/w_727,c_limit/Cohen-Linus-Torvalds.jpg)

### **Linux:**

<https://www.linux.org/>

<https://en.wikipedia.org/wiki/Linux>

<https://ubuntu.com/>

### **Git:**

<https://git-scm.com/>

<https://en.wikipedia.org/wiki/Git>

<https://github.com/git>

### **Tux the penguin:**

[https://en.wikipedia.org/wiki/Tux\\_\(mascot\)](https://en.wikipedia.org/wiki/Tux_(mascot))

[https://en.wikipedia.org/wiki/Tux\\_\(mascot\)#/media/File:Tux.png](https://en.wikipedia.org/wiki/Tux_(mascot)#/media/File:Tux.png)