Where and when X lived: E

What X’s specialty was: E

How X learned his specialty: G

Contributions to CS: E

Technical background: E

X’s personality: E

Tells an interesting story: E

E = Excellent

G = Good

MN = More Needed

M = Missing

Very interesting and well researched paper! I learned a lot from it.   
See other comments below

**Linus Torvalds - The Birth of git and the Linux Kernel**

Operating system. What’s the first word that pops into your head? Probably “Windows” or “Mac”. What the majority of people don’t think of instantly is “Linux”. That’s either because they believe the common misconception that Linux isn’t used as much as Windows or Mac, or they simply haven’t heard of it. One reason why Linux is so often disregarded is that Linux isn’t actually an operating system but a kernel. A kernel’s relationship to an operating system is like an operating system’s relationship to the software that runs on it. Without a kernel, there would be no operating system, and in turn, no applications. There are various so-called Linux distributions, or “distros” for short, which are essentially different flavours of Linux. Some of the better known distributions designed for PC, such as Ubuntu, you may have heard of. But did you know that the insanely popular mobile operating system, Android, also relies on the Linux kernel? Linux dominates in the field of embedded systems too, as the kernel is used in routers, laundry machines, and numerous other embedded devices. The man credited with the creation of the Linux kernel is Linus Torvalds.

Torvalds had a typical computer genius’ childhood. He was born in Helsinki, Finland on December 28, 1969. He first started computer programming when he was introduced to the Commodore VIC-20, an 8-bit home computer. He was only age 11 at the time, and he had already started to program in BASIC. He attended the University of Helsinki, where he was introduced to MINIX, a UNIX-based operating system. MINIX inspired him to create his own version of UNIX, which he decided to name Linux (derived from Linus + UNIX).

The main difference between Linux and the common operating systems such as Windows and Mac, is that Linux is a kernel. Think of a kernel as the operating system that operating systems run on. The relationship of a kernel to an operating system is similar to the relationship between an operating system and an application. Linux distributions, however, are complete operating systems. There are many popular Linux distros. All of them are based on the Linux kernel, so the behind-the-scenes stuff function exactly the same, though their graphical user interfaces may vary based on their desktop environment (DE). Ubuntu, as mentioned earlier, is the most popular personal distro, which is usually used in conjunction with the Unity DE. Debian is a distro designed mainly for running server software, as it usually runs on a light DE like XFCE to reserve system resources for the server to function at its maximum. There’s also Fedora, which is also a very popular distro designed for home use. It typically runs GNOME 3, but with some elements taken from other environments too.

Another big difference between Linux and Windows or Mac is that Linux is an open-source project. Torvalds decided to use the GNU Project’s General Public License version 2 for his Linux kernel. The GNU Project is a mass collaboration project whose aim is to promote the distribution of open-source software, where the software could be distributed, modified, and used freely. In simpler words, Linux is free, and almost all of the applications that run on Linux are also free. The majority of Linux distributions are free as well, which means anyone can install it onto their computer by simply downloading the installation disc files. .

As Linux became more well-known, more and more developers wanted to contribute to the project. Linux kernel development used to rely on the free software BitKeeper as their source code management (SCM) system, but the copyright holder of BitKeeper decided to withdraw gratis use of the software. Torvalds could not find any other free revision control systems that could replace BitKeeper, so he set out to write his own.

He named his SCM system “git”, which is British slang for “unpleasant person”. Since he named Linux after himself, he decided to name this after himself too. He even gave git the description of “the stupid content tracker” on git’s user manual. Git has become the most widely adopted version control system in the software industry and is used by almost all the technology giants, including Microsoft, Apple, and Google. GitHub is a web-based git repository hosting service, designed for both personal use and enterprise use. It has over 10 million users as of 2015, and is by far the most-used repository hosting service, which in turn makes git the most-used SCM system.

As you can probably already tell, Torvalds is not a “pleasant” person. He is well-known for his rude behaviour and terrible attitude. For instance, in an Aalto talk, he publicly insulted NVIDIA on a televised Q&A as “the single worst company we’ve ever dealt with,” then he concluded with “NVIDIA, F\_\_\_ YOU!” while presenting his middle finger at the camera. During the beginning of the Linux kernel’s development, he frequently insulted other developers quite harshly with foul language. His attitude dramatically delayed Linux and git’s development, as many contributors decided to abandon the project due to his combative personality..

Despite his unpleasant professional attitude, Linus Torvalds has greatly contributed to the field of computer science. Not only has he written the most widely adopted system kernel, but he has also created the most popular source code management system, both of which are incredibly important contributions to modern-day technology. He’s appeared in *Time* magazine multiple times, and was listed as seventeenth in “*Time 100: The Most Important People of the Century*” in year 2000. He currently lives in Dunthorpe, Oregon, United States, with his wife Tove Torvalds and three children.