Women in tech history

The tech industry’s gender gap is a complex issue deeply rooted in long-held societal stereotypes and cultural biases: “In tech, girls don’t code because girls don’t code.” One way of changing this “is carefully documenting the role women played in the dawn of technology” says Sheryl Sandberg, Facebook COO (chief operating officer – supervising the day to day administrative and operational functions of a business).

Now let’s see how big of a role women played in shaping technology.

Augusta Ada Lovelace was an English mathematician and writer and is known as the founder of scientific computing. In 1843, she published instructions for the world’s first algorithm intended to be processed by a computer. Lovelace’s notes became one of the critical documents to inspire Alan Turing’s work on the first modern computers in the 1940s. Although the computer wasn’t built until the 21st century, her work earned her the title of the first computer programmer in history. Since 2009, she has been recognized annually on October 15th to highlight the often overlooked contributions of women to math and science.

Grace Hopper was not only one of the first programmers, but she was also the first woman to graduate from Yale with a Ph.D. in mathematics and the first woman to reach the rank of Admiral in the U.S. Navy. She is best known for her contributions to computer programming, software development, and the design and implementation of programming languages. In 1951, she invented the first compiler, effectively creating the basis of modern computing. In 1953, Hopper proposed the idea of writing programs in words, rather than symbols, but she was told her idea would not work. Nevertheless, she continued working on an English-language compiler, and in 1956 her team was running FLOW-MATIC, the first programming language to use word commands.

Dr. Erna Schneider Hoover is a living legend and pioneer in STEM. She dedicated her entire career to improving the landscape for women in technical and scientific fields, while also improving our daily lives with her invention. She is an [American](https://en.wikipedia.org/wiki/Americans) [mathematician](https://en.wikipedia.org/wiki/Mathematician) notable for inventing a computerized telephone switching method which "revolutionized modern communication" according to several reports. It prevented system overloads by monitoring call center traffic and prioritizing tasks on [phone switching systems](https://en.wikipedia.org/wiki/Telephone_exchange) to enable more robust service during peak calling times. She is considered one of the Mothers of Technology and has been inducted into the National Inventor’s Hall of Fame in 2008.

45 Margaret Hamilton is an American [computer scientist](https://www.britannica.com/science/computer-science) who was one of the first computer [software](https://www.britannica.com/technology/software) programmers; she created the term [software engineer](https://www.britannica.com/technology/software-engineering) to describe her work. Although Margaret planned to study abstract mathematics at [Brandeis University](https://www.britannica.com/topic/Brandeis-University), she accepted a job at the [Massachusetts Institute of Technology](https://www.britannica.com/topic/Massachusetts-Institute-of-Technology) (MIT) where she began programming software to predict the weather. She also worked on the [Semi-Automatic Ground Environment](https://en.wikipedia.org/wiki/Semi-Automatic_Ground_Environment) or SAGE Project at [the MIT Lincoln Lab](https://en.wikipedia.org/wiki/MIT_Lincoln_Laboratory), where she was one of the programmers who wrote software for the prototype [computer](https://en.wikipedia.org/wiki/AN/FSQ-7_Combat_Direction_Central) used by the [U.S. Air Force](https://en.wikipedia.org/wiki/United_States_Air_Force) to search for possibly unfriendly aircrafts and she wrote software for a satellite tracking project. In 1969, Neil Armstrong made history when he became the first person to step foot on the moon. What many people don’t know is that Armstrong wouldn’t have made it to the moon without Margaret Hamilton. Hamilton invented the software that allowed the computers on Apollo 11 to prioritize important tasks. Without that software, it’s likely that the mission would have failed.

In the past 20 years of her life she gained a lot of awards, I’m not gonna name them all, I’m just gonna say 2 of them:

In 2016, she received the [Presidential Medal of Freedom](https://en.wikipedia.org/wiki/Presidential_Medal_of_Freedom) from Barack Obama, the highest civilian honor in the United States.

In 2017, she received the Computer History Museum Fellow Award, which honors exceptional men and women whose computing ideas have changed the world.

There are more women than those I presented and now I’m going to mention them:

Sister Mary Kenneth Keller – First female computer science PhD

Hedy Lamarr: The Inventor of WiFi  
Annie Easley: The NASA Rocket Scientist  
Mary Wilkes: The First Home Computer User  
Adele Goldberg: The Inspiration For GUI (Graphical user interface)  
Radia Perlman: The Mother Of The Internet  
Katherine Johnson: The NASA Mathematician  
Karen Sparck-Jones: The Pioneer in Information Science  
Chelsea Brown: The Security Guru