

## Important Women in Computer Science



**Name:** Ada Lovelace  
(1815-1852)

**Accomplishments:** Ada Byron (Lady Lovelace) was the daughter of the poet, Lord Byron. She was an

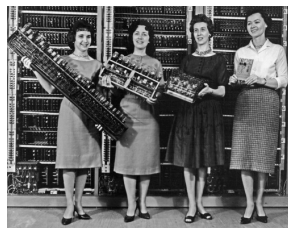
English Mathematician and writer. She is most famous for her work on Charles Babbage's early mechanical general-purpose computer, the Analytical Engine. She is considered the first computer programmer because she developed the first algorithm to be carried out by a machine.



**Name:** Henrietta Swan Leavitt (1868-1921)

**Accomplishments:** Henrietta Swan Leavitt was an American

astronomer who invented a system of measurement in space and discovered cepheid variable stars. These discoveries helped to prove that the universe is expanding.



computer scientist and US Navy Rear Admiral. She was one of the first programmers of the Harvard Mark I computer in 1944 and she invented the first compiler for a computer programming language. She also popularized the idea of machine-independent programming languages and helped develop COBOL and FORTRAN, some of the first high-level programming languages. Hopper is often credited as the first person to “debug” a computer when she removed a moth (an actual bug) from the Harvard Mark machine in 1947.

**Name:** Hedy Lamarr (1914-2000)

**Accomplishments:** Hedy Lamarr was an Austrian-American film actress and inventor. Not only did she have a successful Hollywood film career in the 1930's and 1950's, she also co-developed a radio guidance system for allied torpedos during WWII. The system used spread spectrum and frequency hopping technology to eliminate the threat of jamming by the Axis powers. This technology was the foundation for modern Wi-fi, Bluetooth, and CDMA.

**Name:** ENIAC Girls

**Accomplishments:** Betty Holberton, Kay McNulty, Marlyn Wescoff, Ruth Lichterman, Betty Jean Jennings, and Fran Bilas were the 6 women who worked as the first computer programmers on the ENIAC during WWII. They were called ENIAC Girls or Refrigerator Ladies. These women programmed the ENIAC to perform calculations for ballistics trajectories electronically for the Ballistic Research Laboratory (BRL), a part of the U.S. Army.



**Name:** Grace Hopper (1906-1992)

**Accomplishments:** Grace Hopper was an American

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Their work on ENIAC earned each of them a place in the Women in Technology

International Hall of Fame.



**Name:** Betty Holberton (1917-2001)

**Accomplishments:**

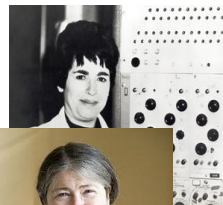
Betty Holberton worked as one of the women programmers of the ENIAC during WWII. After the war, she helped develop UNIVAC, designed computer control panels, and helped develop the instruction set for BINAC. She also wrote the first generative programming system, SORT/MERGE.



**Name:** Katherine Johnson (1918- )

**Accomplishments:**

Katherine Johnson is an American physicist, space scientist, and mathematician. She pioneered the use of digital electronic computers at NASA and calculated trajectories, launch windows, and emergency back-up return paths for key NASA missions.



**Name:** Thelma Estrin (1924-2014)



**Accomplishments:** Thelma Estrin was an American computer scientist and engineer who worked in expert systems and biomedical engineering. She pioneered the use of computer technology in healthcare and medical research.

**Name:** Erna Schneider Hoover (1926- )

**Accomplishments:** Erna Schneider Hoover is an American mathematician who invented a computerized telephone switching system that prevented the telephone system overloads by monitoring call center traffic and prioritizing tasks. For this system, she received one of the first patents for computer software ever issued.

**Name:** Lynn Conway (1938- )

**Accomplishments:** Lynn Conway is an American computer scientist, electrical engineer, and inventor who co-wrote the book on VLSI design, which led to the development of today's microprocessors that contain millions of gates and billions of transistors.

**Name:** Anita Borg (1949-2003)

**Accomplishments:** Anita Borg was an American computer scientist who founded the Institute for Women in Technology, and co-founded the Grace Hopper Celebration of Women in Computing.

**Name:** Radia Perlman (1951- )

**Accomplishments:** Radia Perlman is an American software designer and network engineer. She is best known for inventing spanning-tree protocol (STP), which enabled

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the invention of the internet through network bridges.

specializing in small multi-rotor drones like the Roomba for the consumer, commercial, and military markets.



**Name:** Deborah Estrin  
(1959- )

**Accomplishments:** Deborah Estrin is an American professor of computer science at Cornell NYC

Tech. She is a pioneer in the field of embedded network sensing, which is important in the new field of the internet of things. The internet of things is a proposal to have everyday objects send and receive data with network connectivity.



**Name:** Regina Dugan (1963- )

**Accomplishments:** Regina Dugan is an American businesswoman, inventor, and technology developer. She was the 19th director of

Defense Advanced Research Projects Agency (DARPA). DARPA is an agency in the U.S. Department of Defense that develops military technology. She worked as an executive at Google and is now working as an executive at Facebook.



**Name:** Helen Greiner  
(1967- )

**Accomplishments:**

Helen Greiner is the co-founder of iRobot and is the CTO of CyPhyWorks, a company