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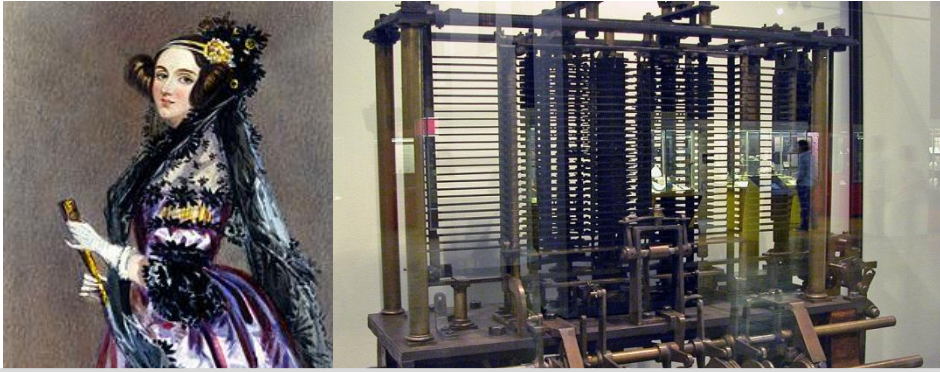
10 Celebrated Female Computer Scientists



NEWTON ACADEMY
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WiSE@Lincoln
bridging the academic gender gap



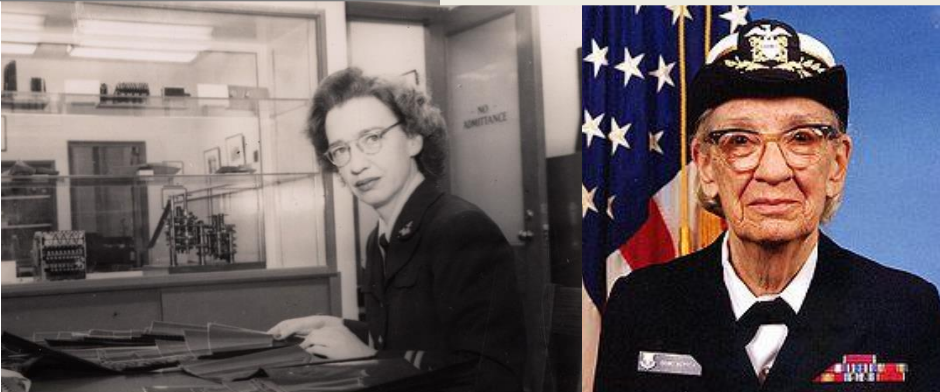
Ada Lovelace was an English mathematician and writer, chiefly known for her work on Charles Babbage's early mechanical general-purpose computer, the Analytical Engine. Her notes on the engine include what is recognised as the first algorithm intended to be carried out by a machine. Because of this, she is often regarded as the first computer programmer.

Ada Lovelace (1815 – 1852)

Mathematician and writer.

The world's first computer programmer.

Ada Lovelace Day (held in October each year) is an international celebration of the achievements of women in STEM.



Dr Grace Murray Hopper was an American computer scientist and United States Navy rear admiral. She was a leader in the field of computer programming and software development concepts, and contributed to the transition from primitive programming techniques to the use of sophisticated compilers.

Grace Hopper (1906 – 1992)

Computer scientist.

One of the first programmers of the Harvard Mark I computer in 1944



Frances Elisabeth 'Fran' Allen was an American computer programmer whose pioneering contributions to the theory and practice of optimizing compiler techniques laid the foundation for modern optimizing compilers and automatic parallel execution. She also had a role in intelligence work on programming languages and security codes for the National Security Agency.

Frances Allen (1932 –)

Computer programmer and pioneer in the field of optimizing compilers.

Winner of the A.M. Turing Award in 2006.

The first female IBM Fellow.



Manuela Veloso (1957 –)

Computer Scientist and artificial intelligence (AI) researcher.

Manuela Maria Veloso is the Herbert A. Simon Professor in Computer Science and Robotics at Carnegie Mellon University. She is an international expert in artificial intelligence and robotics, and describes her research goals as the "effective construction of autonomous agents where cognition, perception, and action are combined to address planning, execution, and learning tasks".



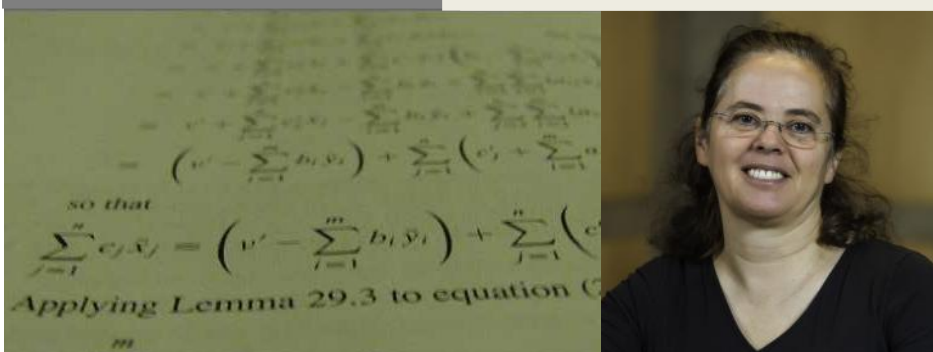
Shafira Goldwasser (1958 –)

Computer scientist and cryptographer.

Twice won the Gödel Prize in theoretical computer science.

Co-recipient of the A.M. Turing Award in 2012

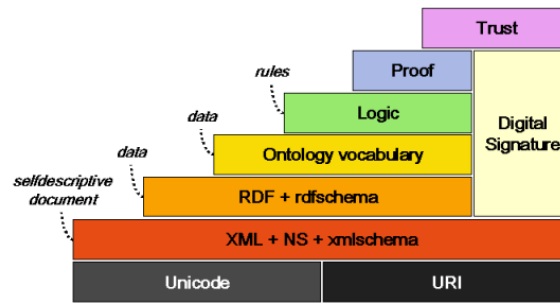
Shafira Goldwasser is an American-born Israeli computer scientist. She is a professor of electrical engineering and computer science at MIT, and a professor of mathematical sciences at the Weizmann Institute of Science, Israel. Her research areas include computational complexity theory, cryptography and computational number theory.



Éva Tardos (1957 –)

Computer scientist and mathematician.

Éva Tardos is a Hungarian mathematician and the Jacob Gould Schurman Professor of Computer Science at Cornell University. Her research focuses on issues at the interface of computing and economics, with an emphasis on algorithms and on the design and analysis of efficient methods for combinatorial optimization problems on graphs or networks.



Dame Wendy Hall (1952 –)

Computer Scientist and web pioneer.

Dame Wendy Hall, is a Professor of Computer Science at the University of Southampton, England. One of the first computer scientists to undertake serious research in multimedia and hypermedia, the influence of her work has been significant in many areas including digital libraries, the development of the Semantic Web, and the emerging research discipline of Web Science.



Annie Easley (1933 – 2011)

Computer and rocket scientist, and mathematician.

Annie J. Easley was an African-American computer scientist, mathematician and rocket scientist who worked for the Lewis Research Center of the National Aeronautics and Space Administration (NASA). She was a leading member of the team which developed software for the Centaur rocket stage and one of the first African-Americans in her field.



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Anita Borg (1949 – 2003)

Computer scientist.

Developed MECCA, an email and Web-based system for communicating in virtual communities.

Anita Borg was an American computer scientist and founder of the Institute for Women and Technology (now the Anita Borg Institute for Women and Technology) and the Grace Hopper Celebration of Women in Computing. She believed passionately in working for greater representation of technical women. Her goal was to have 50% representation for women in computing by 2020.



Dana Ulery (1938 –)

Computer scientist and
space technology
researcher

Dana Ulery is an American computer scientist and pioneer in scientific computing applications. She was the first woman engineer at the NASA Jet Propulsion Laboratory (Pasadena, CA), designing and developing algorithms to model NASA's Deep Space Network capabilities and automating real-time tracking systems for the *Ranger* and *Mariner* space missions.

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