



Frances "Fran" Allen
(1932-2020)

Nationality: American

Occupation: Computer Scientist

Known for: Foundational work on optimizing compilers for high-performance computing



In 1989, she became an IBM fellow and in 2006 she won the Turing Award. She was the first woman to receive either accolade.

To learn more, visit affectingmachines.net



Margaret Hamilton

(b. 1936)

Nationality: American

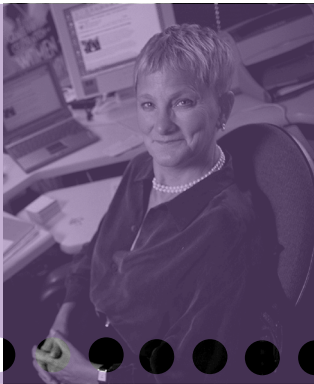
Occupation: Software Engineer

Known for: Leading the coding team that helped make the Apollo missions possible, discovering new ways of system debugging



She coined the term “software engineer” to describe her work.

To learn more, visit affectingmachines.net




Anita Borg
(1949-2003)

Nationality: American

Occupation: Computer Scientist,
Advocate, Founder

Known for: Supporting women in
the computer industry by creating
initiatives like Sisters and the
Institute for Women in Technology
(now Anita Borg Institute)



“The presence—or absence—of
women in the computing and
technological fields, as students,
inventors, creators and educators,
will define our technological
future.”

To learn more, visit affectingmachines.net

“Anita Borg” by Anita Borg, 2002, The Heinz Awards




Aisha Bowe
(b. 1985/6)

Nationality: American

Occupation: Aerospace Engineer, Founder, C.E.O.

Known for: Making waves as a NASA rocket scientist turned tech entrepreneur, expected to be the sixth Black woman to cross the Kármán line into outer space



In high school, her guidance counselor suggested she go into cosmetology. Instead, she followed her interest in math and science, and obtained degrees in aerospace engineering.

To learn more, visit affectingmachines.net




Joy Buolamwini
(b. 1989)

Nationality: Ghanaian-American-Canadian

Occupation: Computer Scientist, Researcher, Activist

Known for: Blending art and science, intervening in racial bias in AI software, founding the Algorithmic Justice League



“Whether AI will help us reach our aspirations or reinforce the unjust inequalities is ultimately up to us.”

To learn more, visit affectingmachines.net



Lynn Conway

(b. 1938)

Nationality: American

Occupation: Computer Scientist,
Professor

Known for: Innovating
microelectronic chip design,
publicly advocating for trans rights



“If you want to change the future,
start living as if you’re already
there.”

To learn more, visit affectingmachines.net

Lynn Conway by Charles Rogers, 2006, licensed by CC BY-SA 2.5




Rana el Kaliouby
(b. 1978)

Nationality: Egyptian, American

Occupation: Computer Scientist,
Entrepreneur, Author

Known for: Humanizing technology
with emotion AI, co-founding
Affectiva and the Autism &
Communication Technology
Initiative



“You don’t have to be a genius to
be a scientist, but you do need to
be persistent.”

To learn more, visit affectingmachines.net

Rana El Kaliouby by Cairue, 2020, licensed by CC BY-SA 4.0



The ENIAC Six

Kathleen Antonelli (1921-2006)

Betty Jean Bartik (1924-2011)

Betty Holberton (1917-2001)

Marlyn Wescoff Meltzer (1922-2008)


Frances Spence (1922-2012)

Ruth Teitelbaum (1924-1986)

Nationality: American

Occupation: Computer
Programmers

Known for: Programming the
ENIAC which was the world's
first general-purpose electronic
computer



With their math and problem solving skills, these six women programmed the ENIAC from scratch, making them some of the first computer programmers in history.

To learn more, visit affectingmachines.net




Ursula Franklin
(1921-2016)

Nationality: German, Canadian

Occupation: Materials Engineer,
Professor, Activist

Known for: Advocating for socially responsible science and technology; dedication to feminism and pacifism, influenced by her experience as a Holocaust survivor



“Technology involves organization, procedure, symbols, new words, equations, and most of all, it involves a mindset.”

To learn more, visit affectingmachines.net


Ursula Franklin by Rick Eglinton, Toronto Star File Photo



Timnit Gebru

(b. 1983)

Nationality: Eritrean, American
Occupation: Computer Scientist,
Researcher, Advocate
Known for: Speaking truth to
power, leading research on
racial disparities in tech, starting
initiatives like Black in AI and
Distributed AI Research Institute



“Artificial Intelligence researchers
should not be silent regarding the
repercussions of their work.”

To learn more, visit affectingmachines.net




Grace Hopper
(1906-1992)

Nationality: American

Occupation: Computer Scientist,
Mathematician, Navy Rear Admiral

Known for: Pioneering computer programming, inventing the compiler, making programming languages more user-friendly



“If you ask me what accomplishment I’m most proud of, the answer would be all the young people I’ve trained over the years; that’s more important than writing the first compiler.”

To learn more, visit affectingmachines.net




Katherine Johnson
(1918-2020)

Nationality: American

Occupation: Mathematician

Known for: Calculating and analyzing flight paths for pioneering space projects at NASA including missions that sent astronauts to the moon



Ever since she was a child, she loved math. She counted everything she could, from the steps to church to the stars in the sky.

To learn more, visit affectingmachines.net

"Katherine Johnson" by NASA, 1983




Arlene Gwendolyn Lee
(b. circa 1940)

Nationality: Canadian

Occupation: Computer
Programmer

Known for: Being one of the first
women to program computers in
Canada



Hiring agents didn't believe how
good she was at their computer
programming aptitude tests, and
assumed it was a prank until she
proved them wrong.

To learn more, visit affectingmachines.net



Ada Lovelace
(1815-1852)

Nationality: British

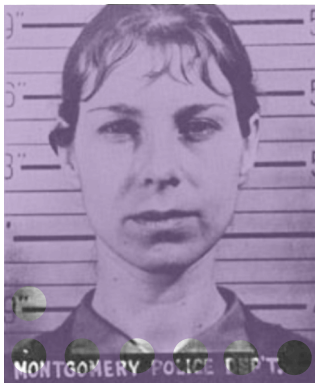
Occupation: Mathematician

Known for: Connecting art with logic as a Poetical Scientist, writing proto-computer program for the Analytical Engine almost 100 years before the invention of the modern computer



“We may say most aptly that the Analytical Engine weaves algebraic patterns just as the Jacquard loom weaves flowers and leaves.”

To learn more, visit affectingmachines.net




Judith "St. Jude" Milhon
(1939-2003)

Nationality: American

Occupation: Programmer, Hacker,
Writer, Activist

Known for: Her formative influence
on the cyberpunk movement,
co-creating the Community
Memory project, fighting for equal
rights and freedom of expression
with computer technology



As one of the first women hackers,
she was a feminist spokesperson
who worked hard to increase
women's participation in cyber
culture. Her battle cry was
"Girls need modems!"

To learn more, visit affectingmachines.net




Cathy O'Neil

(b. 1972)

Nationality: American

Occupation: Mathematician,
Activist, Writer

Known for: Interrogating ethical implications of data, founding algorithm auditing firm ORCAA, publishing several influential books



She originally worked as a university math professor before she switched to the private sector as a hedge fund analyst. But when she faced the unjust practices in the finance industry, she joined the Occupy Wall Street movement.

To learn more, visit affectingmachines.net

"Headshot" via Cathy O'Neil




Radia Perlman
(b. 1951)

Nationality: American

Occupation: Network Engineer,
Software Designer, Author

Known for: Creating the spanning tree protocol and other innovations that helped make complex computer networks like the Internet possible



“If you think you are different from the stereotype of engineers...that means you are valuable! If you understand people...if you can make something beautiful...if you can explain things coherently... these are valuable skills. [...] We need more ‘different’ people.”

To learn more, visit affectingmachines.net




Carol Shaw
(b. 1955)

Nationality: American

Occupation: Video Game Designer

Known for: One of the first women video game designers, creating iconic games like River Raid



Initially, she wasn't planning a career in gaming, but she accepted a job offer at Atari because it meant that she would get to play games for work.

To learn more, visit affectingmachines.net




Stephanie "Steve" Shirley
(b. 1933)

Nationality: British

Occupation: Founder,
Philanthropist

Known for: Starting software
company Freelance Programmers
to create job opportunities and
improve working conditions for
women in the computer industry



She adopted the name “Steve”
when she started her business in
response to the sexism she faced
in the industry.

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Sophie Wilson
(b. 1957)

Nationality: British

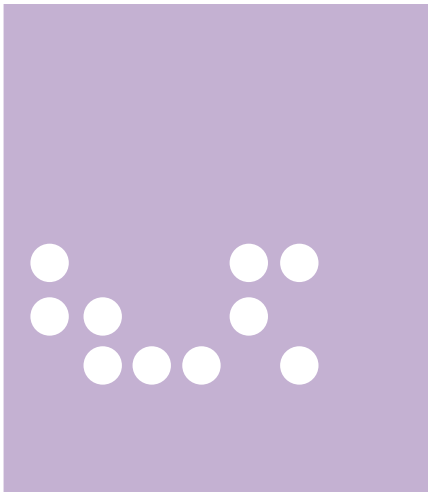
Occupation: Computer Scientist

Known for: Her pioneering work on microcomputers, helping build the ARM Reduced Instruction Set Computer which is a key part of the most used processor chip for smartphones



“Not knowing something is impossible has interesting effects on your work.”

To learn more, visit affectingmachines.net



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Makers



Entrepreneurs



Disruptors



Thinkers

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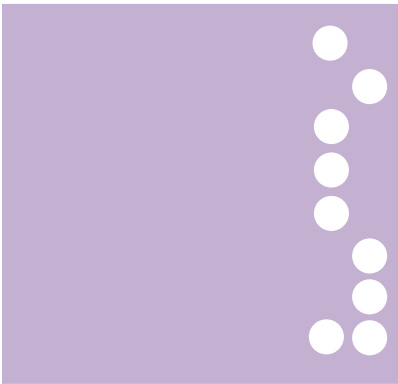


Disruptors



Thinkers

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Nationality:

Occupation:

Known for:



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