

Margaret Hamilton

Lead Software Engineer Apollo 11

Timeline

- 1936: Born in Indiana
- 1958: Received a B.A. in Math w/ a Minor in Philosophy: Earlham College in Indiana
- 1960: Started at MIT for the meteorology department to write weather-predicting software.
**Software engineering hadn't even been invented yet, so Margaret taught herself how to program and became an early pioneer in the software world.
- 1965: Became the director of the Software Engineering Division at the Charles Stark Draper Laboratory for the Apollo 11 mission.
*Margaret was in charge of the navigation and lunar landing guidance software that ended up preventing an abort of the mission.
- 1989: Awarded the Augusta Ada Lovelace Award
- 2003: NASA Exceptional Space Act Award
- 2009: Outstanding Alumni Award from Earlham College

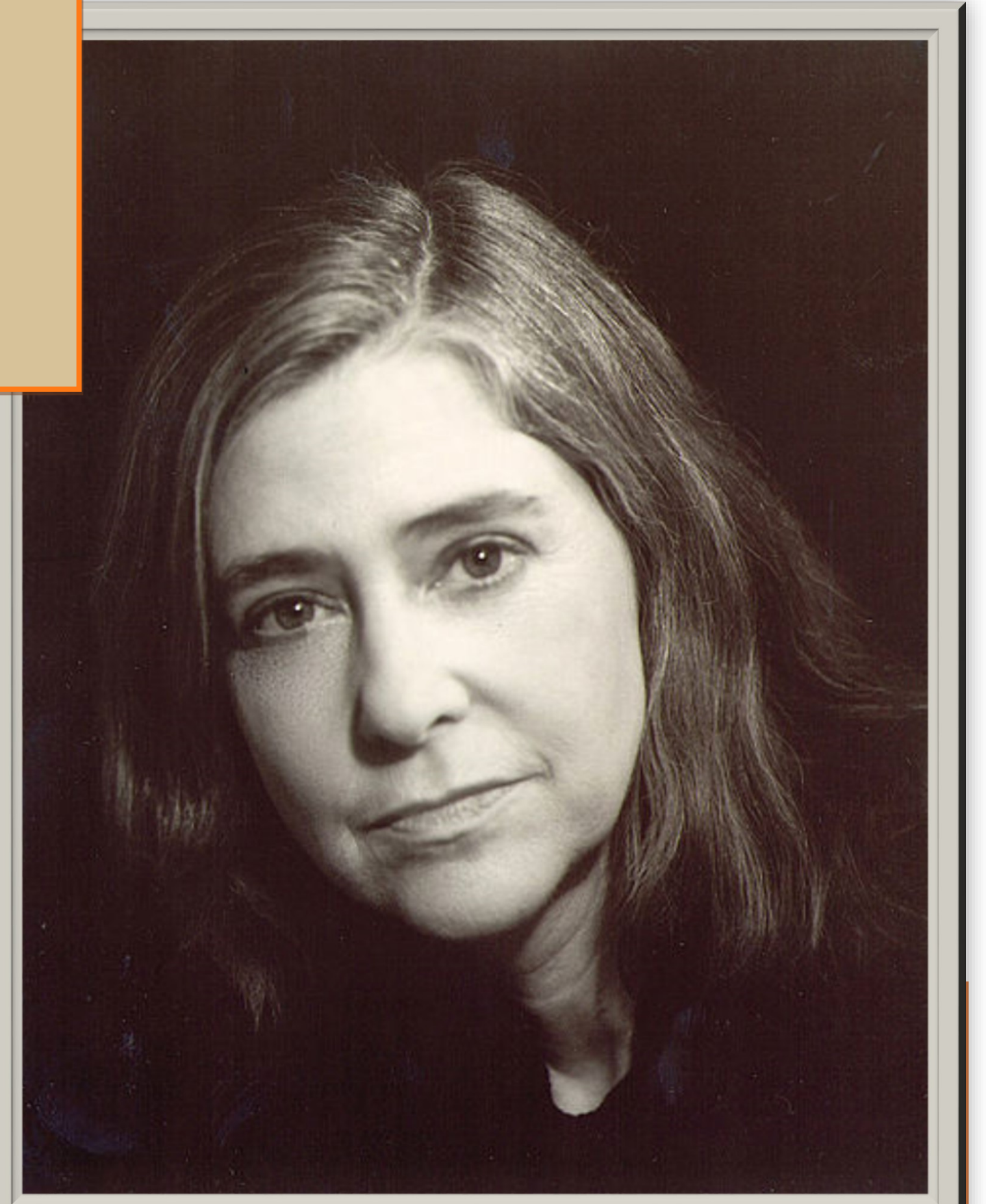
“Software engineering related courses are important for all aspects of STEM including that of helping one to become more creative, a better problem solver—including being a good detective and how to understand the world in terms of a system of systems—to learn how to be analytical and objective, about abstraction, and how to think outside of the box. How to learn from your mistakes and turn that into a positive result can also be learned from software engineering related courses. I believe it is also important to learn (or be around) things like music, art, philosophy, linguistics, and math including logic; any of which could help improve one’s being an excellent programmer/problem solver/thinker and to have a more global perspective on things. The ultimate goal would be that of teaching one how to think (design).”



Minutes before Apollo 11 was set to land, the computer started receiving extra, unnecessary data due to an error. The extra data overloaded the computer & set off alarms. With Margaret & her team’s code, the computer was able to discern the higher-priority task at hand & successfully conduct the landing.

“When I attended high school and college, software engineering was not yet a field. “

- Best known for her pioneer work in asynchronous programming and human-in-the-loop decision capability.
- Credited with coining the term “software engineering”.
- Margaret Hamilton became one of the greats in CS and the “one giant leap for mankind” was made.



By: Danielle Safonte

References:

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