Making History: Margaret Hamilton

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Influence

Margaret Hamilton is a computer programmer who wound up leading the Software Engineering Division of MIT. Margret Hamilton coined the term "software engineering" and developed the building blocks for its foundation.

1
A keypunch operator would create holes in paper cards, keying the codes into what were called punch cards.
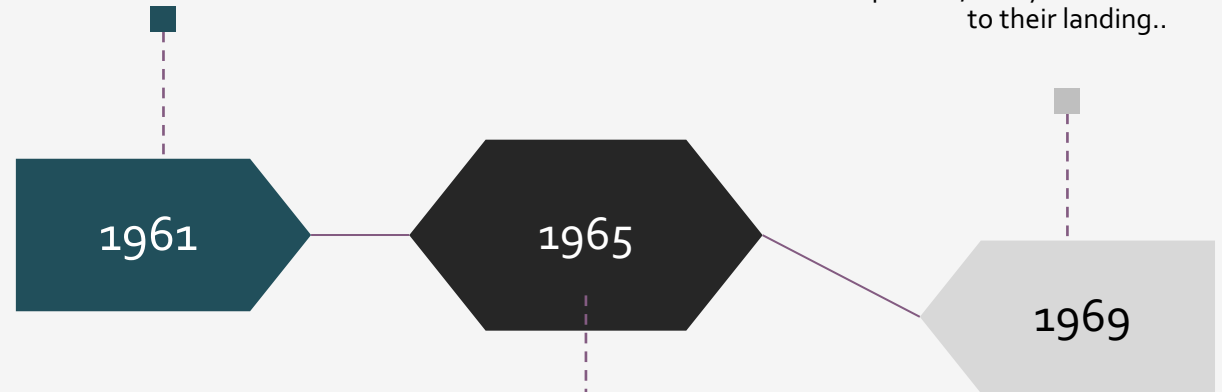
2
"The Listings." The Listings show the results of guidance equations and errors. As for the software Hamilton and her team produced there were no errors.

3
Margaret Hamilton and her team made a breakthrough in programming technology; the programming for the Apollo Guidance Computer

Work

The very first contract NASA issued for the Apollo program was with the Massachusetts Institute of Technology to develop the guidance and navigation system for the Apollo spacecraft

The software, Hamilton and her team developed allowed the computer to recognize error messages and ignore low-priority tasks, continued to guide astronauts Neil Armstrong and Buzz Aldrin over the crater-pocked, dusty crust of the moon to their landing..

1961

1965

1969

She was the first programmer hired for the Apollo project at MIT. She became head of her own team at the MIT Instrumentation Laboratory (later known as Draper Laboratory), which was dedicated to writing and testing software for Apollo 11's two 70-pound computers—one aboard the command module, *Columbia*, and one aboard the lunar module, *Eagle*.

Awards and recognition

On November 22, 2016, President Barack Obama awarded Hamilton the Presidential Medal of Freedom for her contribution that led to Apollo 11's successful landing.

Iconic

The photo we decided to recreate was taken in 1969, depicting Margaret Hamilton standing next to the vital programming needed for the Apollo 11's successful landing. The year 1969 historically was not only during the Cold War but also the Space Race, causing a drive and motivation for a successful landing. During this time period the United States and Russia were at a stand off and in a race to see who could land on the moon first. Margaret Hamilton stated, There was no second chance. We all knew that." on the development of the software. All major research developments were vital. Margaret Hamilton and her team made a breakthrough in programming technology and the results are what Margaret Hamilton is standing next too, the programming for the Apollo Guidance Computer

Ready… Set…

- Nicole Fezza, to model as Hamilton because they share similar features.
- Nicole was in charge of props and she obtained a dress and wireframe glasses.

- We stacked about 19 books to make sure they reach up to Nicole's head.
- Matthew edited the images turning the pictures from color to black and white and added extra props in the background.

ACTION!!

Editing Before and After

Citations:

- https://www.nasa.gov/feature/margaret-hamilton-apollo-software-engineer-awarded-presidential-medal-of-freedom, Margaret Hamilton, Apollo Software Engineer, Awarded the Presidential Medal of Freedom, Nicholas P. Russo, Aug 6, 2017

- https://www.smithsonianmag.com/smithsonian-institution/margaret-hamilton-led-nasa-software-team-landed-astronauts-moon-180971575/ Margaret Hamilton Led the NASA Software Team That Landed Astronauts on the Moon, Alice George, March 14, 2019

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