

# Generations of STEM:

# Ada Lovelace

## The First Computer Programmer

Ada was the daughter of a mathematician and the poet Lord Byron. Her mother worried she would develop her father's personality as a poet, so she exposed her to math and music. Ada found great joy in machines and inventions. She went on to marry an aristocrat, becoming Lady Ada King, Countess of Lovelace.



In 1833, Ada's mentor Mary Sommerville introduced her to Charles Babbage, inventor of the Difference Engine, a machine for performing mathematical calculations. Babbage, known as the father of the modern computer, had plans for a far more complicated machine known as the Analytical Engine. Intrigued by this machine, Ada expanded on Babbage's ideas at his request, publishing an article describing how the machine utilized punch cards to perform calculations. With this publication, she is recognized as the first computer programmer. Her published algorithm to compute Bernoulli numbers is generally thought of as the first computer program, despite the Analytical Engine never reaching physical completion. Ada Lovelace passed away shortly after publishing her algorithm, but her notes later inspired Alan Turing and his work on the modern computer in the 1940s.

Image Source: [Store norske leksikon](#) Information Sources: [Britannica](#), [Computer History Museum](#), [Finding Ada](#)