Ada Lovelace

(1815 - 1852)

The first computer programmer

Ada Lovelace was the only legitimate child of Lord and Lady Byron. Unusually for the time, she received strong encouragement to develop her interest in mathematics and logic, particularly from her mother who was herself a gifted mathematician. From the age of 4, Lovelace received private tuition in science and mathematics.

Lovelace's precocious intellectual talent was evident at an early age. For example, at the age of twelve she was inspired by the anatomy of birds to design a flying machine. She described it to her mother as being shaped as a horse powered by a steam engine *"to move an immense pair of wings…in such a manner as to carry it up into the air while a person sits on its back."*

At seventeen, Lovelace met British mathematician Charles Babbage, described as the "father of computers". Babbage had proposed a theoretical machine called an Analytical Engine. Lovelace recognised that this machine had applications beyond simple calculation. She went on to publish an elaborate set of notes – simply called "Notes"- that described an algorithm to be carried out on Babbage's machine. Babbage's machine was never completed, so Lovelace's algorithm was never put into effect. But more than a hundred years after her death, Lovelace's notes were republished and recognised as the first description of computer software.

Main image: Watercolour of Ada King, Countess of Lovelace [Alfred Edward Cohen, Public Domain].
Background: Diagram of an algorithm for the Analytical Engine for the computation of Bernoulli numbers, Luigi Menabrea with notes by Ada Lovelace. [Public Domain].

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