

Ada Lovelace

Mathematician, Computer Programmer and Writer

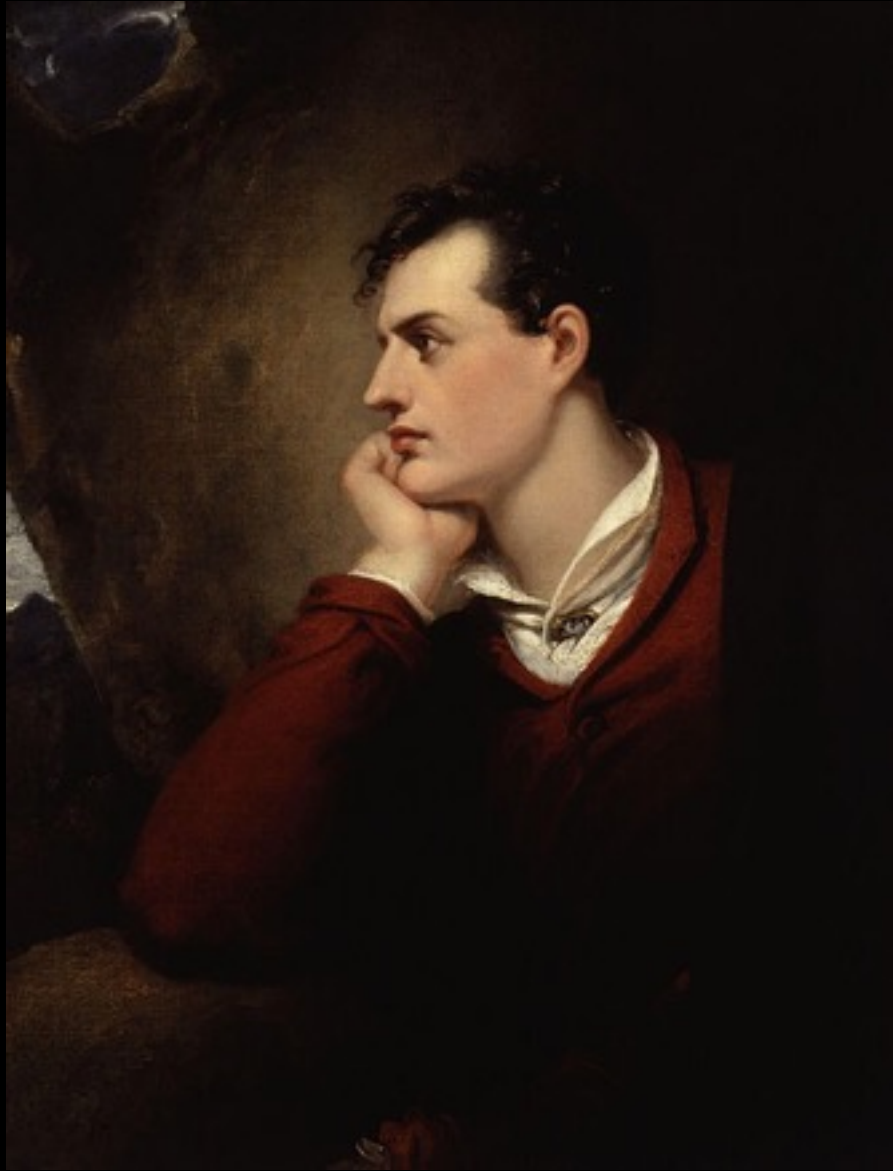
Early Life

Augusta Ada King-Noel, Countess of Lovelace

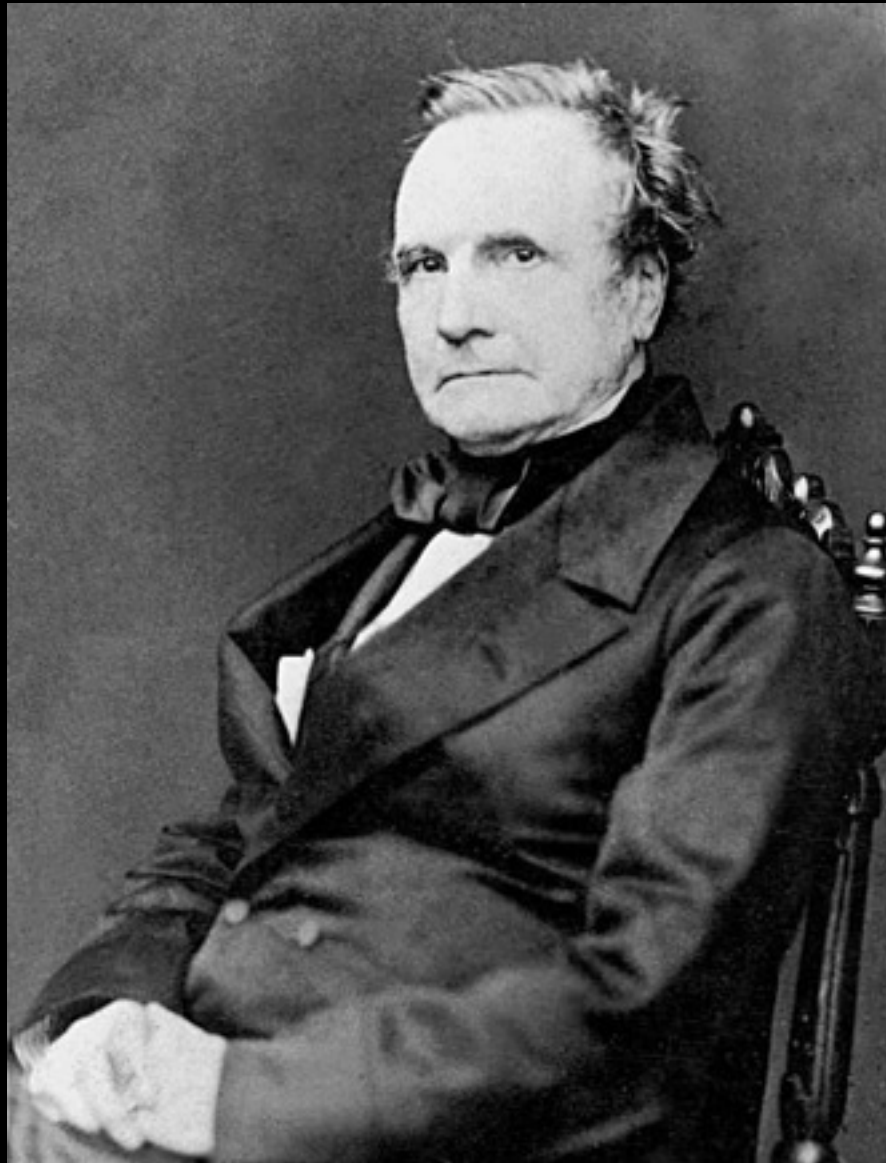
1818 – 1852



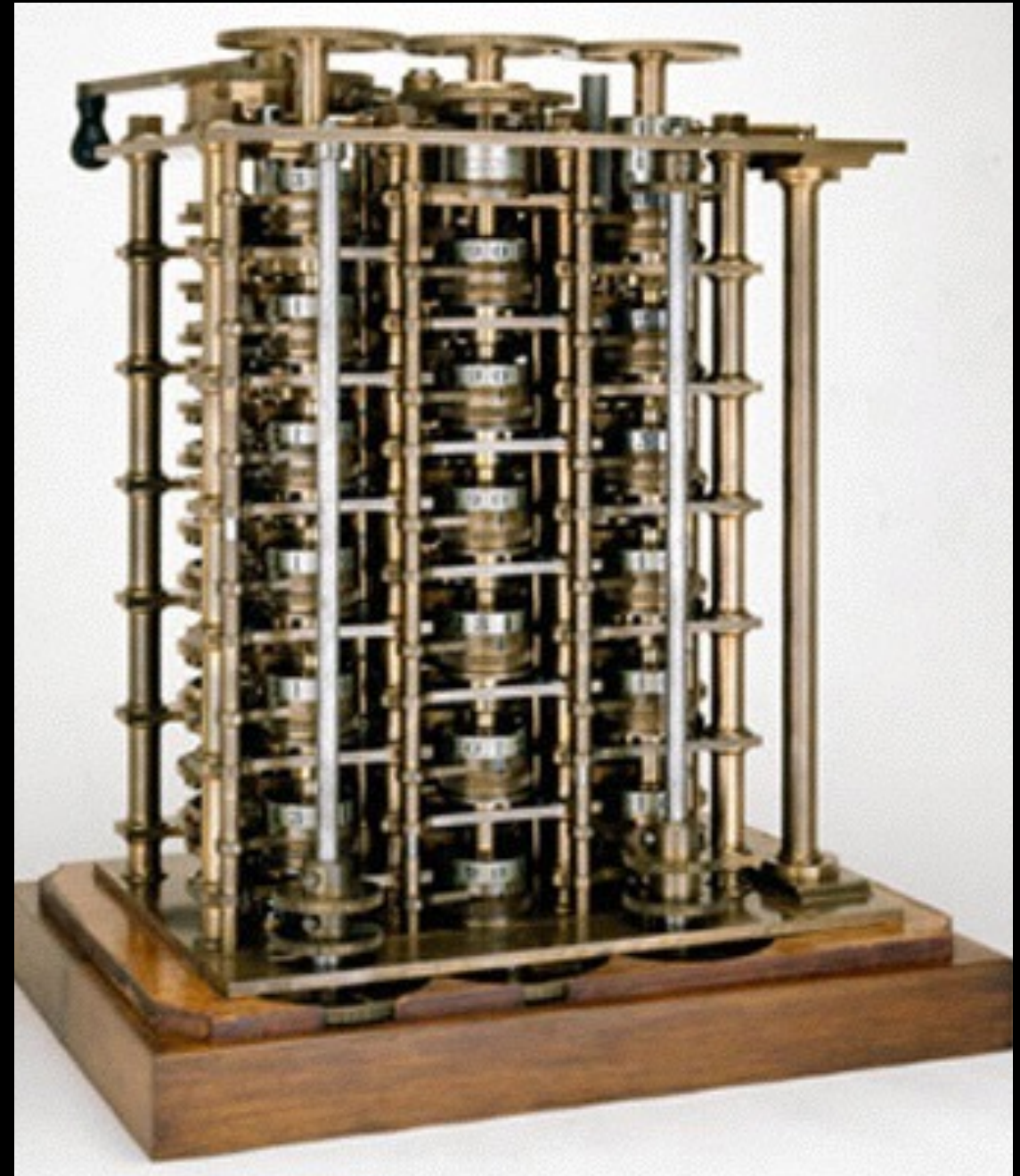
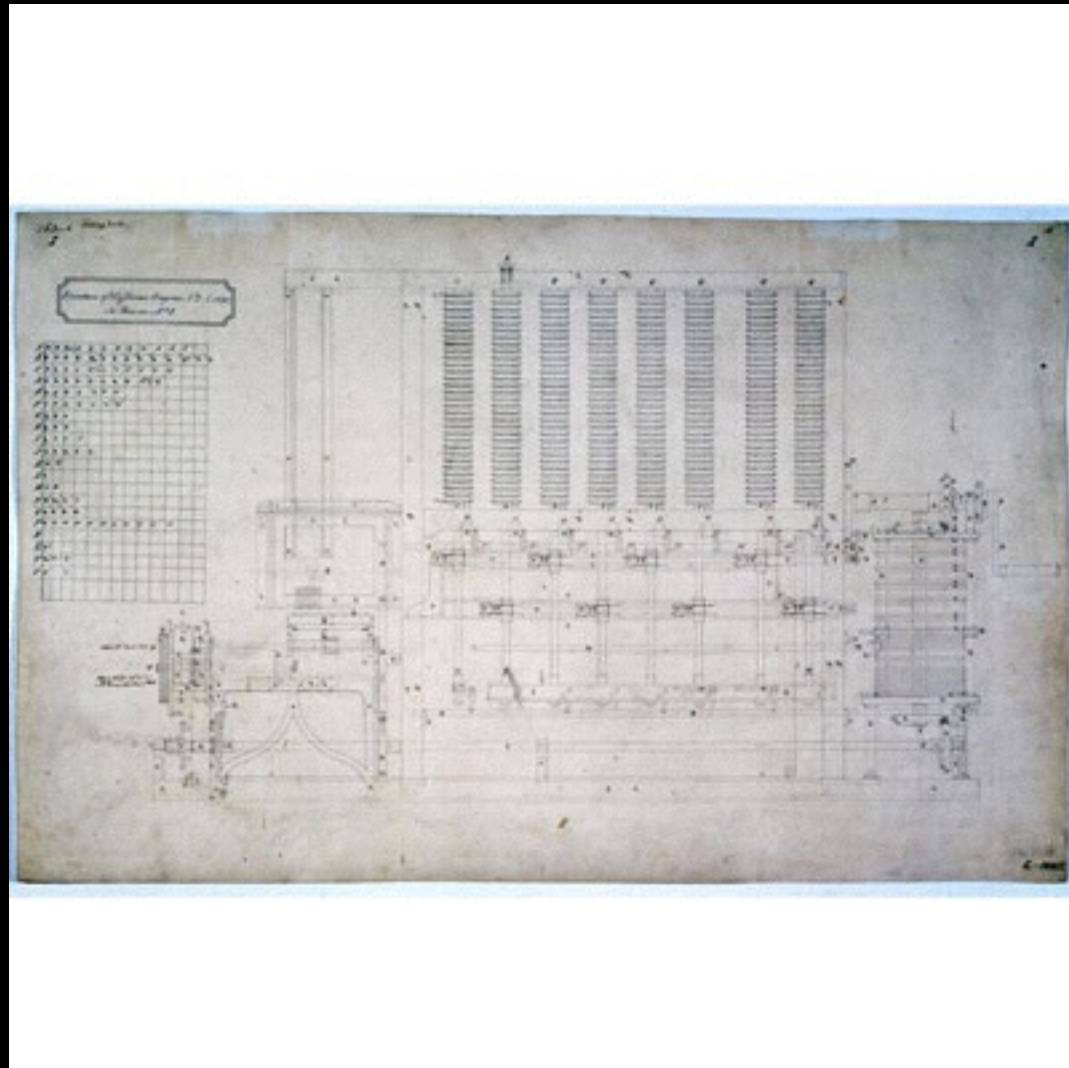
Family



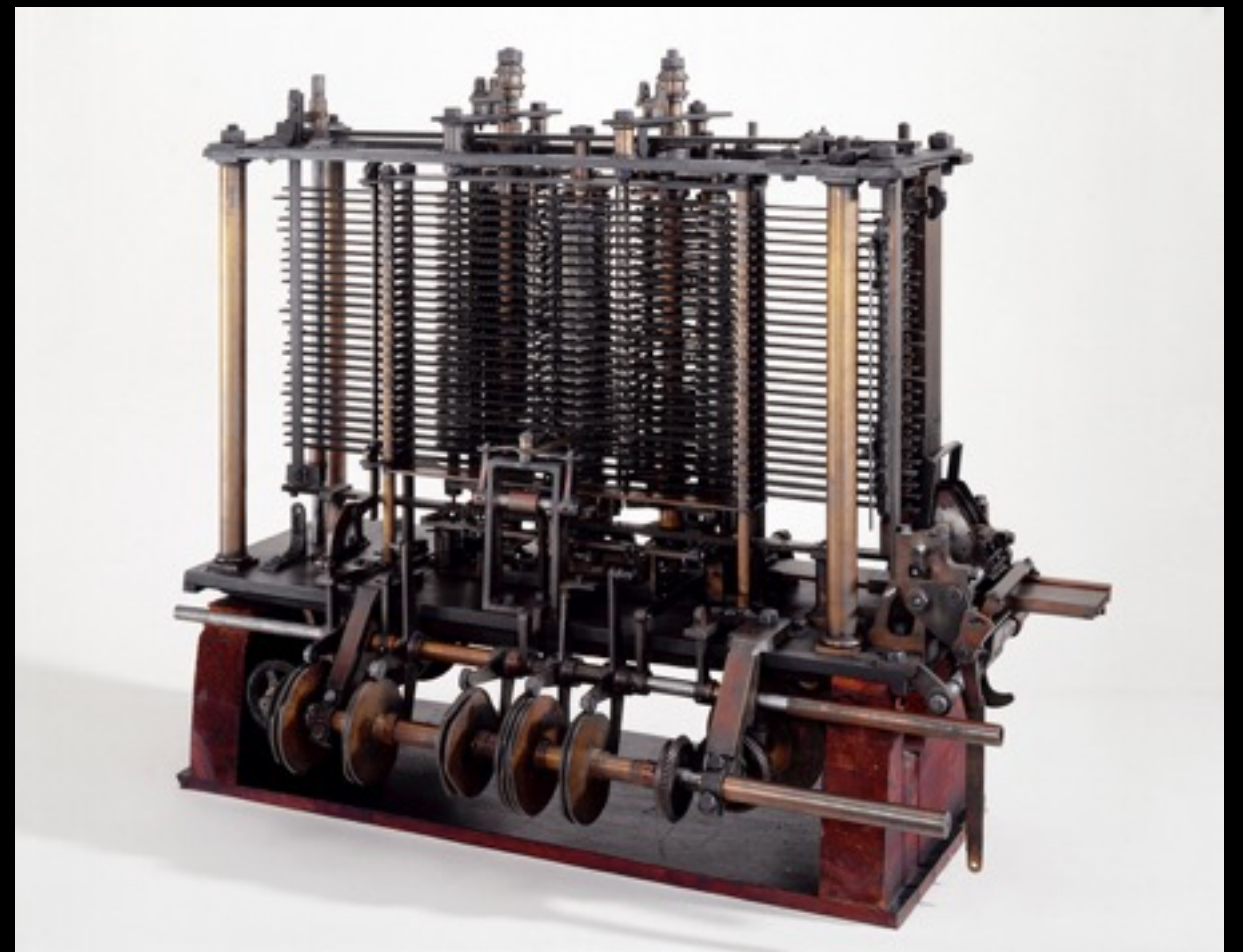
Charles Babbage



Difference Engine



Analytical Engine



Ada's Translation



"IMAGINATION IS THE DISCOVERING FACULTY, PRE-EMINENTLY. IT IS THAT WHICH PENETRATES INTO THE UNSEEN WORLDS AROUND US, THE WORLDS OF SCIENCE." — ADA LOVELACE

ADA LOVELACE

MATHEMATICIAN AND WRITER

SHE DESCRIBED HERSELF AS A POETICAL SCIENTIST.

When Ada Lovelace first saw the Difference Engine, she became obsessed. The early computing pioneer Charles Babbage invented this gigantic, gear-filled calculator, and after meeting him in 1833, Ada did everything she could to convince him to work with her.

Ada's love affair with math started when she was very young. Her mother, Anne Isabella Milbanke, nicknamed the "Princess of Parallelograms," was a mathematician who wanted the right upbringing for her daughter. Ada's father was the famed poet Lord Byron. The wildness that made him an amazing poet also made Byron something of a lousy husband, which led Ada's mother to leave him after Ada was born. Her mother gave Ada an unusually strict mathematical education.

Ada met Charles Babbage when she was 17 and a very persistent young woman. She begged him to take her on as a student, but he was much too busy thinking up his next mechanical breakthrough. So when Ada saw an article in a Swiss journal about his newest idea, the Analytical Engine, she saw her chance to impress him.

The article was written in French, which Ada spoke, so she translated his paper into English and published it in 1843. But that wasn't all: she added her own notes, making it twice as long! This got Charles's attention, and their collaboration began.

Ada imagined a world where computers did more than mere calculations—a world where they could write music and become extensions of human thought. She also designed a way to program the Analytical Engine, using punch cards with a stepwise sequence of rational numbers called Bernoulli numbers. This is recognized as the first computer program ever!

Ada was a true visionary, and she remains an inspiration to this day. Her name has become a call to action and proof that women can accomplish great things in technology, computing, and programming.

HER LAST NAME COMES FROM HER HUSBAND, WILLIAM KING, THE EARL OF LOVELACE.

ADA LOVELACE DAY IS CELEBRATED ON THE 25th TUESDAY IN OCTOBER.

SHE HAS INSPIRED CHARACTERS IN NARRATIVE & GRAPHIC NOVELS.

THE US DEPARTMENT OF DEFENSE NAMED A COMPUTER LANGUAGE "ADA."

SHE SIGNED HER LETTERS TO CHARLES BABBAGE AS "LADY FAYU."

HER PROGRAM WAS INSPIRED BY THE PUNCH CARDS USED ON MECHANICAL LOOMS.

“Imagination is the discovering faculty, pre-eminently. It is that which penetrates — into the unseen worlds around us, the worlds of science”

- Ada Lovelace