Lady Ada Augusta Lovelace

Lady Ada Augusta Lovelace did not lead the kind of life typical of most aristocratic Englishwomen during the early 1800s. The daughter of the romantic English poet Lord Byron, Lovelace contributed significantly to modern day programming concepts. Lovelace became involved with the theoretical concepts of computers when she translated a paper on Charles Babbage's analytical engine. The analytical engine was a device designed to perform mathematical calculations automatically from coded card instructions.

In 1842, at the age of 27, Lovelace began working with Babbage. During the first year Lovelace worked with Babbage, several of her ideas were incorporated into the design of the analytical engine. The most significant idea was what is now called the loop concept. In her studies, Lovelace noticed that the same sequence of instructions often had to be repeated when a single calculation was being performed. She concluded that one set of instruction cords could be used if there was a way to loopback to those instructions. A calculation could then be made with only a fraction of the original effort. Lovelace is now considered to be the first programmer because of her insight into the dynamics of the programming process.

A high level programming language used mostly by the government was named Ada in honour of her achievements.