Alan Turing

Alan Mathison Turing (23 June 1912 – 7 June 1954) was an English mathematician, computer scientist, logician, cryptanalyst, philosopher, and theoretical biologist. Turing was highly influential in the development of theoretical computer science, providing a formalization of the concepts of algorithm and computation with the Turing machine, which can be considered a model of a general-purpose computer. He is widely considered to be the father of theoretical computer science and artificial intelligence.

During the Second World War, Turing worked for the Government Code and Cypher School at Bletchley Park, Britain's codebreaking center. For a time, he led Hut 8, the section responsible for German naval cryptanalysis. Here, he devised a number of techniques for breaking German ciphers, including improvements to the pre-war Polish bombe method, an electromechanical machine that could find settings for the Enigma machine.

After the war, Turing worked at the National Physical Laboratory, where he designed the Automatic Computing Engine, one of the first designs for a stored-program computer. In 1948, Turing joined Max Newman's Computing Machine Laboratory at the Victoria University of Manchester, where he helped develop the Manchester computers and became interested in mathematical biology.