The Father of Quantum Computing

In 1985, David Deutsch, otherwise known as "the father of quantum computing," was the first to dream up a universal quantum computer. He imagined it acting like a Turing machine, which is a simple machine able to simulate any computer algorithm (like cracking encrypted code in World War II). Like a Turing machine, a universal quantum computer would use universal quantum gates, which follow simple rules the quantum computer would follow, to simulate any problem it was given. Deutsch also proved in 1992 that quantum computers will be able to solve certain problems faster than any classical computer that could ever be built. Today's classical computers store information in bits, which can be 0 or 1. Quantum computers store information in **qubits**, which are not restricted to being only 0 or 1 but can be a combination of both at the same time. Deutsch proved that this unique property allows quantum computers to solve some problems much faster.