Machine Learning to Quantum Machine Learning

Extended Abstract

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# 1 Introduction

Machine Learning (ML) is a subset of computer science that uses algorithms to detect patterns in the data and to fit a statistical model. The model aims to make accurate predictions based on new data. Quantum Machine Learning (QML) expands what is capable of classical computers by exploiting phenomena that are observed in quantum physics, such as superposition and entanglement.

# 2 The Qubit

The qubit is to quantum computing is what the bit is to classical computing.

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