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Future of Quantum Computing

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Abstract: Quantum computing is a burgeoning field that has the potential to revolutionize various aspects of science, technology, and society. Quantum computing is poised to revolutionize the world of computing by harnessing the principles of quantum mechanics to solve complex problems that are practically impossible for classical computers. This research paper aims to examine the future of quantum computing and its potential applications. It explores the underlying principles of quantum mechanics and highlights the challenges faced in the development of practical quantum computers. By evaluating recent advancements and ongoing research initiatives, this study seeks to provide insights into the future prospects of quantum computing, the underlying principles, and the potential applications that could reshape industries ranging from cryptography to drug discovery. We delve into the challenges that still need to be overcome and discuss the future prospects of this emerging technology.

Keywords: Quantum computing

