

AI-Driven Edge Computing for IoT: A Comprehensive Survey and Future Directions

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Abstract: *The proliferation of Internet of Things (IoT) devices has ushered in an era of unprecedented data generation and processing demands. To meet these challenges, the convergence of Artificial Intelligence (AI) and Edge Computing has emerged as a promising solution. This paper presents a comprehensive survey of the state-of-the-art in AI-Driven Edge Computing for IoT, exploring key technologies, architectures, and applications. We begin by providing an overview of the fundamental concepts underpinning IoT and edge computing, highlighting the convergence of these technologies. As IoT continues to expand its reach across diverse domains, understanding the synergy between AI and edge computing is paramount for unlocking the full spectrum of possibilities, driving innovation, and ensuring a more connected and intelligent future*

Keywords: AI-driven edge computing, Internet of Things (IoT), Edge devices, Machine learning, Deep learning

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