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Redefining Infrastructure as Code (IaaC) Orchestration using AI

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Abstract : This research delves into the transformative impact of Artificial Intelligence (AI) on Infrastructure as Code (IaaC) practices, specifically focusing on the redefinition of infrastructure orchestration. By harnessing AI technologies such as machine learning algorithms and predictive analytics, organizations can achieve unprecedented levels of efficiency and optimization in managing their infrastructure resources. AI-driven IaaC introduces proactive decision-making through predictive insights, enabling organizations to anticipate and address potential issues before they arise. Dynamic resource scaling, facilitated by AI, ensures that infrastructure resources can seamlessly adapt to fluctuating workloads and changing business requirements. Through case studies and best practices, this paper sheds light on the tangible benefits and challenges associated with AI-driven IaaC transformation, providing valuable insights for organizations navigating the evolving landscape of digital infrastructure management.

Keywords : artificial intelligence (AI), infrastructure as code (IaaC), efficiency optimization, predictive insights, dynamic resource scaling, proactive decision-making
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