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## Optimizing Performance in Complex Systems: The Role of AI Agents in Observability

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**Abstract:** Al-driven observability is revolutionizing how we optimize the performance of complex systems. With machine learning, predictive analytics, and automation, Al agents are transforming how we monitor systems, detect anomalies, and analyze root causes. This paper explores the key techniques, challenges, and future trends shaping Al-driven observability.

**Keywords:** AI-driven observability, Performance optimization, AI agents in observability, Anomaly detection AI, Root cause analysis AI, Observability in cloud systems, Predictive performance tuning, Automated remediation AI

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