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## From Reactive to Predictive Reliability: Architecting AI-Driven Incident Management Pipelines for Enterprise-Scale SRE

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Traditional reactive approaches to reliability are becoming inadequate due to the escalating complexity of IT systems encompassing microservices, multi-cloud strategies, and extensive container orchestration. In this talk, I will share how AI-driven incident management pipelines transform reactive workflows into predictive, self-healing systems. We will start by exploring the core AIOps pillars—data ingestion, anomaly detection, event correlation, root-cause analysis, and automated remediation—and see how they map to SRE principles like error budgets and Service Level Objectives. You will discover a reference architecture that unifies multi-cloud observability, integrates open-source and commercial tools, and embeds machine learning models into CI/CD and ticketing pipelines. Along the way, I will highlight strategies for combating alert fatigue, handling model drift, and optimizing costs at scale. By the end, you will understand how to harness predictive insights to reduce your MTTD/MTTR, minimize toil, and deliver enterprise-grade reliability with confidence.