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Talk Title:

Intelligent Resource Orchestration: Using ML to Optimize Cloud Computing Economics

Abstract / Profile:

Abstract: In today's cloud-first world, organizations face the dual challenge of scaling computational resources to meet growing demands while controlling spiraling costs. Traditional reactive approaches to resource allocation often result in significant waste, with studies showing that up to 30% of cloud spend may be unnecessary. This talk discusses a machine learning framework for intelligent cloud resource orchestration that transforms how organizations provision, scale, and optimize their cloud infrastructure. We explore how predictive ML models can analyze historical utilization patterns to forecast resource needs with unprecedented accuracy, enabling proactive scaling decisions minutes to hours before demand shifts occur. The session demonstrates practical implementation patterns for integrating these ML systems with modern infrastructure-as-code workflows, creating a continuous optimization loop that adapts to changing application behavior.