CLOUD INTELLIGENCE / AIOPS

WHAT WE'RE DOING

This workshop provides a forum for researchers and practitioners to present the state of research and practice in AI/ML for efficient and manageable cloud services, and network with colleagues.

CLOUD INTELLIGENCE AIOPS

TOPICS

- Resource scheduling and optimization
- Predictive capacity management
- Resource allocation and packing
- Service quality monitoring and anomaly detection
- Deployment and integration testing
- System configuration
- Hardware/software failure prediction
- Auto-diagnosis and problem localization
- Efficient ML training and Inferencing
- Using LLMs for Cloud Ops
- Incident management
- Auto service healing
- Data center management
- Customer support
- Security and Privacy in Cloud Operations

Cloud Efficiency

Optimal scaling, scheduling and packing to reduce the overall cost and carbon footprint

Resilient Cloud Services

Built-in capabilities of self-healing, monitoring, and diagnosis

AI Efficiency

Increased adoption and long-term sustainability

Intelligent Ops

Easily use, maintain, and troubleshoot workloads

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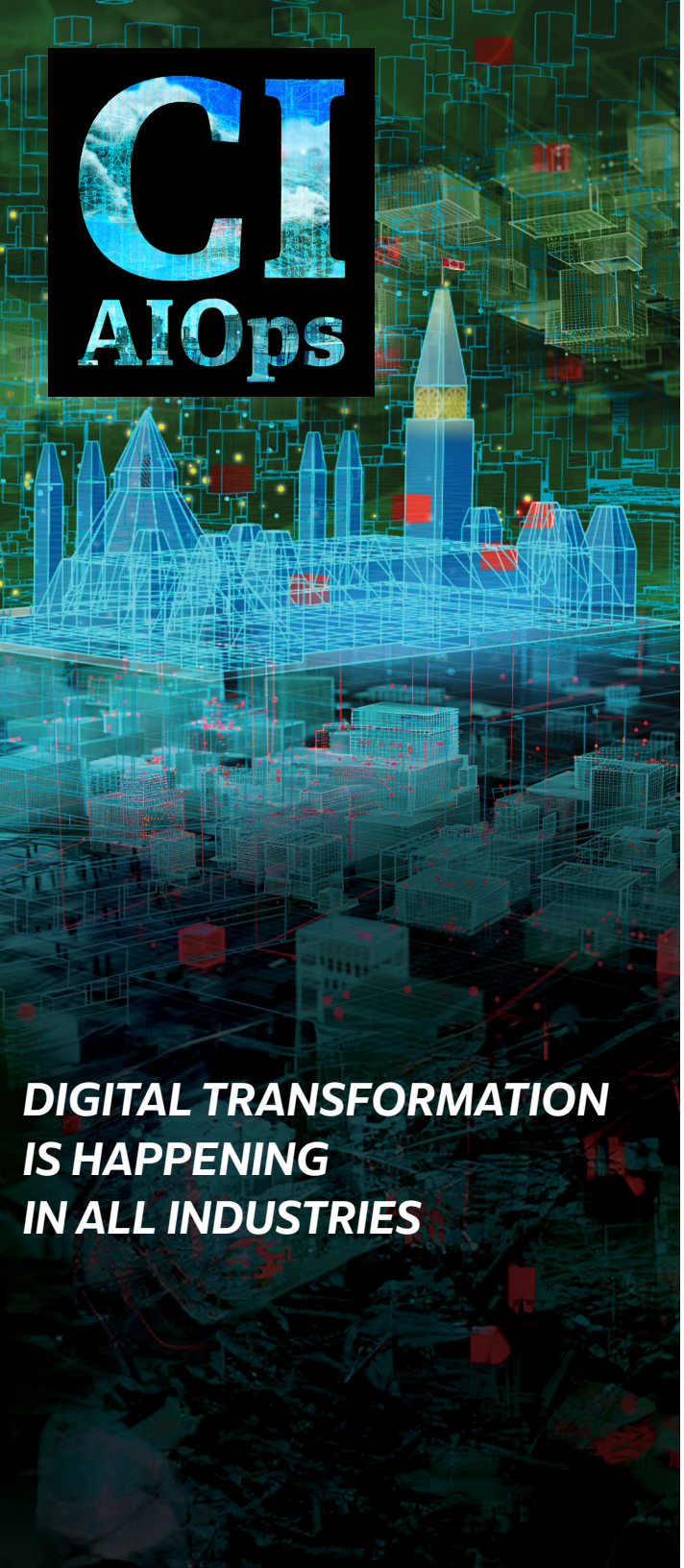
CI AIOps



OVERVIEW

This workshop provides a forum for researchers and practitioners to present the state of research and practice in AI/ML for efficient and manageable cloud services, and network with colleagues.

EFFICIENCY

Optimal scaling, scheduling and packing to reduce the overall cost and carbon footprint.

INTELLIGENCE

Easily use, maintain, and troubleshoot workloads.

RESILIENCE

Built-in capabilities of self-healing, monitoring, and diagnosis.

EFFECTIVENESS

Increased adoption and long-term sustainability.

TOPICS

We are still at an early stage towards realizing this vision. We advocate the urgency of driving and accelerating AI/ML for efficient and manageable cloud services through collaborative efforts in multiple areas, including but not limited to artificial intelligence, machine learning, software engineering, data analytics, and systems.

- RESOURCE SCHEDULING AND OPTIMIZATION
- PREDICTIVE CAPACITY MANAGEMENT
- RESOURCE ALLOCATION AND PACKING
- SERVICE QUALITY MONITORING AND ANOMALY DETECTION
- DEPLOYMENT AND INTEGRATION TESTING
- SYSTEM CONFIGURATION
- HARDWARE/SOFTWARE FAILURE PREDICTION
- AUTO-DIAGNOSIS AND PROBLEM LOCALIZATION
- EFFICIENT ML TRAINING AND INFERENCING
- USING LLMS FOR CLOUD OPS
- INCIDENT MANAGEMENT
- AUTO SERVICE HEALING
- DATA CENTER MANAGEMENT
- CUSTOMER SUPPORT
- SECURITY AND PRIVACY IN CLOUD OPERATIONS