

Emerj AI Research Podcast Highlights

AI Ops in Financial Services: Predicting Failures and Driving Autonomous Resolution

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WHAT ARE THE MAIN DRIVERS FOR FINANCIAL SERVICES TEAMS EXPLORING AI AND MACHINE LEARNING (ML) FOR PREDICTING FAILURES?

The primary driver is the sheer scale and complexity of IT operations in financial services, which is outpacing human ability to manage. Traditional “eyes-on-glass” monitoring is reactive and insufficient. The goal is to move beyond chasing red alerts to proactively identify and resolve issues, minimizing disruptions and associated regulatory exposure, reputational damage, and financial losses.

HOW ARE FINANCIAL SERVICES TEAMS LEVERAGING AI AND ML TO PREDICT FAILURES AND IDENTIFY ROOT CAUSES?

They are moving towards self-healing systems that can monitor, detect, correlate, analyze, decide, and remediate problems in an automated fashion. This involves using the next generation of AI Ops platforms that embed Generative AI (Gen AI) and Agentic AI. These systems are designed to assess situations, evaluate, decide, and act autonomously.

WHAT ROLE DOES AGENTIC AI PLAY IN THIS SHIFT TOWARDS AUTONOMOUS INCIDENT RESOLUTION?

Agentic AI, enabled by Large Language Models (LLMs) and Gen AI, is being packaged into agents that can act autonomously. These agents are crucial for driving the shift from reactive monitoring to autonomous incident resolution by enabling systems to independently address issues.

WHAT ARE THE NEW CHALLENGES AND THREATS INTRODUCED BY AUTONOMOUS AI Ops SYSTEMS?

A key challenge is ensuring the accuracy and trustworthiness of AI systems in an autonomous world, particularly concerning their ability to make the right decisions. Establishing trust at a technical level is critical for employees to have faith in the system’s “ground truth.”

HOW CAN ORGANIZATIONS BUILD TRUST IN AUTONOMOUS AI SYSTEMS WITHIN FINANCIAL SERVICES?

Establishing trust involves using structured knowledge, often in the form of knowledge graphs expressed in languages

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like RDF. This knowledge is both human and AI-readable and captures comprehensive information about IT systems, applications, services, network topologies, device topologies, service dependencies, fault patterns, diagnostic knowledge, and environmental context.

WHAT SPECIFIC BENEFITS DOES CAPTURING AND UTILIZING THIS COMPREHENSIVE KNOWLEDGE PROVIDE FOR AIOps?

Providing AI systems with relevant, structured knowledge offers several benefits:

- **Improved Accuracy:** More data and better knowledge lead to more precise answers.
- **Better Reasoning:** Structured knowledge enables AIs to infer better logical connections and improve their reasoning capabilities.
- **Explainability:** Externalized knowledge allows AIs to explain their reasoning and answers, fostering transparency.
- **Guardrails:** Knowledge can be used to set limits on AI

reasoning and identify when they are making inferences beyond the provided knowledge.

- **Increased Trust and Confidence:** The combined benefits of accuracy, reasoning, explainability, and guardrails build trust and confidence in the AI systems.

HOW IS THIS APPROACH IMPACTING EFFICIENCIES WITHIN FINANCIAL SERVICES IT OPERATIONS?

- One significant efficiency is a dramatic reduction in time to resolution (TTR).
- For simple, low-impact failures (e.g., a server running out of memory), AI systems can completely automate detection, correlation, analysis, decision-making, and remediation, leading to high rates of autonomous resolution.
- For more complex, medium-level problems, humans can remain in the loop, collaborating with AI to resolve issues efficiently.
- For very complex problems, AI acts as a co-pilot that actively “brainstorms” with the Operations Engineers in a collaborative fashion.

ABOUT VIA AIOps

VIA AI powers **VIA AIOps** to deliver the process automation capabilities required to transform operations and dramatically lower cost. VIA delivers intelligent automation from a powerful platform that combines AI, analytics, and machine learning in real time. VIA provides Telcos with a modern operating model that enables a superior customer experience and supports a leaner, more efficient, and effective operations staff.

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