

HRISHIKESH V

Lead ML & Platform Engineer

Specialist in Real-time Systems, Agentic AI, and Cloud-Native Platforms

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Executive Profile

A results-driven full-stack AI/ML and platform engineer specializing in transforming ambiguous business challenges into robust, production-grade systems. Mission-critical solutions are architected and built end-to-end—from foundational infrastructure to the user interface—with a focus on streaming data platforms, Kubernetes/GitOps automation, and intelligent agentic systems. Work is centered on delivering quantifiable improvements: lower latency, higher system reliability, increased developer throughput, and safer, more efficient automations.

Career Highlights

High-Throughput, Real-Time Analytics Backbone

To address the need for real-time blockchain insights, an end-to-end analytics platform was built from the ground up in three months. Through the deployment of a Kafka-to-ClickHouse pipeline, the system achieved a peak throughput of **10.4k events/sec** and sustained a p95 ingest-to-query latency of just **~220 ms**, enabling immediate anomaly detection.

Production-Grade Agentic AI Platform

For the automation of complex legal and financial workflows, a secure, multi-tenant agentic platform was developed using Google ADK and Model Context Protocol (MCP). The system was engineered for safety and auditability, resulting in a **~92% planner success rate** and a p95 end-to-end latency of **~2.9 seconds** under load.

Kubernetes & GitOps Platform Modernization

A complete overhaul of a legacy CI/CD stack was executed, replacing a slow Jenkins/Gerrit setup with a modern Kubernetes and GitOps platform. This effort dramatically improved developer velocity and system stability, cutting deployment times from **10 min to ~3 min** and reducing Mean Time to Recovery (MTTR) from **90 min to ~18 min**.

End-to-End Reinforcement Learning Trading Pilot

To explore algorithmic trading, a JAX-based RL agent was developed and deployed to the live Binance exchange. The system, which learned from order book data, successfully executed trades and averaged a **+1.2% weekly return** over a seven-week pilot with zero breaches of its built-in safety guardrails.

Professional Experience

Solvendo

Bengaluru, India

Lead, Machine Learning

June 2023 – Present

As the founding lead of the ML and platform engineering function, responsibility was assumed for building a diverse portfolio of AI and data-intensive systems from the ground up in a fast-paced startup environment. The role encompassed the full lifecycle from problem definition and system architecture to hands-on implementation and production deployment.

Project: Agentic AI & Automation Platforms

- **Context:** The firm required safe, auditable, and scalable automation for core business operations in the highly regulated legal and financial sectors, including claims processing, 29A verification for CIRP, and RP scoring.
- **Solution:** A multi-tenant agent platform was orchestrated using Google's Agent Development Kit (ADK) and a custom Model Context Protocol (MCP) set of tools. The architecture was built on principles of safety and reliability, featuring schema-typed tools, Redis-based rate-limiting, circuit breakers for fault tolerance, idempotent writes for data integrity, and full OpenTelemetry tracing for end-to-end observability.
- **Impact:** The platform successfully automated critical workflows, achieving a **~92% planner success rate** with a tool error rate below 2.1%. To accelerate development, a declarative agent factory was also created, allowing new, fully-evaluated agentic systems to be onboarded in hours via a single YAML file, down from days of manual effort.

Project: Real-Time On-Chain Analytics Engine

- **Context:** To enter the digital assets space, the company needed a real-time analytics engine capable of ingesting and analyzing live data from the Bitcoin and Ethereum blockchains to identify outliers and anomalies.
- **Solution:** In three months, the entire platform was designed and built from scratch. This involved the deployment and management of full nodes, creation of ABI readers for Ethereum smart contracts, and architecture of a high-throughput data pipeline using Kafka for real-time streaming into a ClickHouse OLAP database for sub-second analytics.
- **Impact:** The platform provided the foundational data backbone for the company's crypto initiatives, handling over **10k events/sec** at its peak and maintaining a p95 ingest-to-query latency of **~220 ms**.

Project: Cloud-Native Platform Modernization (Kubernetes & GitOps)

- **Context:** Developer productivity was severely hampered by a slow, fragile, and opaque CI/CD stack based on legacy Jenkins and Gerrit. Builds and deployments were unreliable and took over 10 minutes.
- **Solution:** The initiative was led to rebuild the entire infrastructure stack. A new Kubernetes cluster was deployed using Kubespray, and a modern, declarative GitOps workflow was implemented with Argo CD and Argo Workflows. The new platform included a full observability stack (Prometheus, Grafana, ELK) and integrated platform services like Vault, Traefik, and Longhorn for secrets, ingress, and storage.
- **Impact:** The new platform dramatically improved both developer experience and system stability. Deployment times were reduced to **~3 minutes**, ephemeral preview environments became trivial to spin up, and MTTR fell by 80% from **90 minutes to ~18 minutes**.

Target

Bengaluru, India

Engineer, Communications Technology

December 2021 – May 2023

- **Zoom Automation:** At the peak of the corporate migration to remote work, orchestration flows were built to automate the onboarding and provisioning of team members on Zoom, reducing IT toil and accelerating readiness for thousands of employees.
- **In-Store Communications App:** A scalable communications application for in-store team members was prototyped and built using the Slack SDK and a custom real-time streaming implementation. The successful proof-of-concept validated the architecture for low-latency, high-volume messaging.
- **Enterprise Wiki Migration:** The project to migrate a critical, but fragile, legacy MediaWiki installation (version 2016) to a modern and secure version (2021) was owned and executed. This required learning PHP to write custom migration scripts and establishing a standardized, documented deployment process.

Technical Skills

Agents & AI: Google ADK, MCP (Tooling), RAG, JAX Reinforcement Learning (PPO, DDPG, DPO), OCR, Vector DBs (Milvus), OpenTelemetry, OPA, Keycloak, Vault/ESO

Data & Infra: Kafka, ClickHouse, DuckDB, Polars, MongoDB, Redis, MinIO, Kubernetes (Kubespray, K3s), Argo CD/Workflows, Prometheus, Grafana, ELK Stack, GCP

Backend: Python (FastAPI), TypeScript (Node.js), gRPC, REST, Bash, Rust (for Blockchain wrappers)

Frontend: NextJs (Typescript), TanStack, React, Zustand

Dev Env: Linux (Garuda/Hyprland), Doom Emacs (Custom configuration), Git, Kubernetes and Docker

Education

B.Tech, Mechanical Engineering — PES University, Bengaluru

2017 – 2021

Pre-University College — RV PU College, Bengaluru

2015 – 2017

High School (Grade 10) — Auden Public School, Bengaluru

2015

Scored 97.6% in PCM + Computer Science

Leadership, Competitions & Pursuits

Leadership & Competitive Achievements

- **Hackathon Winner, Hackference India 2019:** Won the national-level hackathon organized by Anheuser-Busch InBev for architecting and building a fully self-contained, IoT-based automated plant grower.
- **Model United Nations (MUN):** Honed skills in public speaking and policy debate, achieving several 'Best Delegate' awards across the South Indian circuit. Also selected to chair three conferences, directing proceedings and guiding debate.
- **Competitive Quizzing:** Led PES University's official quiz club (2019-21) and directed a national-level competition. Secured multiple wins in collegiate quizzes with a specialization in the space and technology domains.

Intellectual Pursuits & Interests

- **Studies in Western Philosophy:** Explored foundational texts on epistemology and metaphysics, including Kant's *Critique of Pure Reason* (on the limits of understanding), Descartes' rationalism, and Camus' *The Myth of Sisyphus* (on finding meaning in absurdity).
- **Studies in Indian Philosophy:** Guided study under Dr. Pratosh A.P. (Asst. Prof., IISc) with a focus on classical schools of thought. Primarily engaged with Nyāya, the school of logic and epistemology, as an analytical framework for rigorous argumentation. Also studied the metaphysical frameworks of Dvaita and Advaita Vedanta.
- **Hobbies:** Engages in complex mechanical assembly through intricate Lego Technic and Gundam models. Reads extensively in the Chinese Xianxia and Wuxia literary genres, exploring themes of progression and systems.