

Veer Singh

Software Engineer - Kubernetes & Agentic Automation

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SKILLS

Languages: Python, Go, Java, TypeScript
Infrastructure: Kubernetes (GKE, EKS, AKS), Linux (COS, Ubuntu), Docker, Cloud (AWS, GCP), KIND, distributed systems
AI: LLMs (Claude, GPT, Gemini), Agent Tooling (Skills, Harnesses, MCPs), Agentic Workflows, RAG
Observability: Prometheus, SLOs, incident response, root cause analysis, telemetry pipelines
Tooling: gRPC, Protocol Buffers, REST, GitLab CI/CD, Jenkins, Veracode

WORK EXPERIENCE

Google

Sunnyvale, CA

Software Engineer

Mar 2024 – Aug 2026

- Directed the technical strategy of Node Problem Detector, an open-source Kubernetes component monitoring node health on 20M+ GKE nodes, leading execution of roadmaps spanning security, reliability SLOs, and open-source strategy.
- Led a team to build an agentic framework that automates node configuration releases, cutting cycles 4x from 2 months to 2 weeks and accelerating parity with upstream Kubernetes and Linux.
- Engineered a self-improving multi-agent research harness that autonomously investigated production incidents, generating RCAs for 20+ customer incidents and routinely correcting the conclusions of other teams' on-call agents.
- Won an org-wide hackathon architecting a Gemini-powered agentic framework and securing executive funding to productionize it.
- Authored an analysis of node observability across GKE, EKS, and AKS, scoring 239 capability and remediation gaps across 11 domains and converting them into engineering initiatives.
- Drove GKE's response to the CopyFail CVE, coordinating Canonical (Ubuntu) and multiple Google teams to ship fixed OS images fleet-wide within a one-week turnaround.
- Designed a fleet-wide dashboard analyzing telemetry and customer behavior to surface product gaps, driving planning that shipped new features in the GKE API plus 10+ new node health conditions.

Bank of New York Mellon

New York City, NY

Software Engineer

Sep 2020 – Jan 2022

- Built Java, Spring Boot, and Kafka services for real-time SWIFT payments, processing millions of daily transactions concurrently.
- Cut average deployment time 8x, by migrating CI/CD from Jenkins to GitLab and containerizing 4 microservices.
- Implemented TDD principles by automating unit tests (JUnit5, Mockito), increasing code coverage by 15%.

Hindsait

Amherst, MA

Computer Vision Engineer

Feb 2019 – Jun 2019

- Developed OpenCV applications and labelling tools for handwriting detection on 12M+ medical documents.
- Engineered APIs used for pre-processing, data labelling, morphologies, and executing handwriting recognition.

INTERNSHIPS

Google

Sunnyvale, CA

Software Engineer Intern

May 2023 – Sep 2023

- Developed an anomaly detection framework that converted health signals into troubleshooting recommendations.

Bloomberg

New York City, NY

Quantitative Engineer Intern

Jun 2022 – Aug 2022

- Developed a Python-based backtesting application to facilitate data analysis on 20+ years of commodity market data.

PROJECTS

Kubernetes Node Problem Detector

Present

- Driving open-source initiatives to expand test coverage from 45% to 80%+ while integrating KIND end-to-end testing.

Penny Post (pennypost.school)

Present

- Developing an AI pen-pal platform for underserved grade 2-4 classrooms to encourage learning through writing.

Car Copilot (carcopilot-gemma.com)

Mar 2026

- Built an offline AI mechanic for drivers running Gemma fully on-device for real-time diagnostics with no network dependency.

EDUCATION

University of Massachusetts Amherst

Amherst, MA

Master of Science in Computer Science (MS)

Dec 2023

Bachelor of Science in Computer Science (BS) (*cum laude*)

Sep 2020