

VINOD LOGANATHAN RAMESH KUMAR

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SUMMARY

Senior Infrastructure and Platform Engineer with over 11 years of experience in **Critical and Emerging Technologies**, specializing in **Artificial Intelligence (AI)** and **Advanced Computing**. Proven track record of architecting resilient, large-scale **distributed systems** and specializing in the development of **Agentic AI Debugging Platforms** using **ADK and LangGraph**, capable of cross-stack orchestration across observability, infrastructure, and communication layers to automate complex root-cause analysis.

TECHNICAL SKILLS

- **AI & Agentic Engineering:** ADK (Agent Development Kit), LangGraph, LangChain, MCP (Model Context Protocol), Agentic Workflows, Autonomous Remediation, Vertex AI.
- **Containerization & Orchestration:** Kubernetes (GKE/EKS), Docker, Helm, K8s Operators/CRDs, ArgoCD, Kustomize.
- **Infrastructure as Code (IaC):** Terraform, Crossplane, CloudFormation, Ansible.
- **Observability & Incident Response:** Splunk, New Relic, Prometheus, Grafana, PagerDuty (API/Automated Workflows)
- **Cloud & Edge Platforms:** GCP (GKE, VPC, Cloud Run), AWS (EKS, Lambda, S3), Akamai CDN.
- **Networking & Service Mesh:** Istio, Calico, Flannel, Envoy, Service Discovery, Load Balancing.
- **Languages:** Golang, Python, Shell Scripting, C, C++.
- **Databases & Messaging:** Kafka (KRaft/Zookeeper), MongoDB, PostgreSQL, Redis.

CERTIFICATIONS

CNCF - Certified Kubernetes Application Developer (CKAD), Certified Kubernetes Administrator (CKA), Certified Kubernetes Security Specialist (CKS), Coursera AWS Cloud Solutions Architect

QUALIFICATION

University of Southern California, Los Angeles, CA

(Graduated- Dec 2015)

Master of Science, Electrical Engineering in Computer Networks

GPA- 3.8 out of 4.0

Courses related to Computer Networks: Internet and Cloud Computing, Operating Systems, Internetwork and Distributed Systems, Computer Networks, Broadband Network Architectures, Wireless Internet and Pervasive Computing

WORK EXPERIENCE

Staff Software Engineer

(Aug 2024 - Present)

Intuit Credit Karma, 13146 Ballantyne Corporate Pl, Charlotte, NC 28277

- **Scalable Infrastructure & Cost Optimization:** Specialized in designing scalable IaaS and PaaS compute architectures using Kubernetes and service mesh. Led the architectural modernization of high-throughput data streams by migrating from legacy ZooKeeper to KRaft Metadata Quorum and directly driven \$400K+ in annual cloud cost savings through platform optimization.
- **Agentic AI Platform Engineering:** Architected a **multi-agentic AI Incident Debugger using the ADK and langGraph framework**, automating complex root-cause analysis by orchestrating data across GitHub, Splunk, New Relic, and GCP. Engineered custom plugins to bridge PagerDuty alerts with automated remediation actions such as Akamai CDN cache purging and GKE node recycling resulting in a significant reduction in MTTR. Successfully automated the end-to-end GKE COS VM upgrade process using purpose-built agents, drastically increasing platform reliability and developer velocity.

Senior Software Engineer (Platform Engineering)

(Dec 2022 – Aug 2024)

Nike Inc., One Bowerman Dr, Beaverton, Oregon, US - 97005

- **MLOps & Runtime Foundation:** Engineered automated Kubernetes runtime provisioning using **Golang and Crossplane**, specifically optimizing high-performance **GPU-enabled node groups** to support Nike's global ML training and inference workloads.
- **AIOps & Orchestration:** Orchestrated 50+ microservices using **ArgoCD (GitOps)**. Developed automated monitoring and self-healing workflows using Prometheus and Python to detect and recycle unhealthy GPU nodes. This reduced manual on-call interventions by 30% for Nike's internal ML platform and improved overall cluster reliability.
- **Infrastructure Modernization:** Refactored 3 monolithic applications as separate microservices and migrated them from EC2 to EKS. Integrated Istio into k8s environments, enhancing service mesh capabilities for improved security and observability. Involved in the cloud cost-optimization process and saved around \$90K in the fiscal year 2023.

Cloud Orchestration Software Engineer (Distributed systems and Edge computing)

(Jan 2016 – Dec 2022)

Intel Corporation, 2111 NE 25th Ave, Hillsboro, Oregon, US - 97124

- Contributed 60% of code for **Intel's Edge Workload Orchestrator**, enabling multi-cluster Helm deployments via REST API using Golang and MongoDB.
- **Developed core platform features:** Service Discovery, Best-fit Node Assignment, and Mutating/Validating Webhooks.
- Built IPMI/Modbus exporters for **Prometheus/Grafana**, enabling real-time thermal and power telemetry for Intel data centers.