

KRISHNA CHARAN THOTA

✉ krishnacharanthota@gmail.com ☎ (908)-938-6513 [in LinkedIn](#) [🔗 Portfolio](#)

SUMMARY

Software Engineer with 5 years of experience building distributed systems, cloud-native services, and observability platforms at Amazon and Armada AI using Java, Go, AWS, Azure, and Kubernetes. Experienced in owning services end to end, resolving critical production incidents, and improving reliability across high-scale environments.

PROFESSIONAL EXPERIENCE

Software Engineer, Armada AI, Bellevue, WA

Mar 2025 – Present

- Designed and delivered a cloud-native data ingestion platform integrating Nokia and Starlink APIs, collecting performance metrics and fault alarms every 15 seconds across distributed 5G, satellite, and edge infrastructure.
- Built a secure webhook delivery platform using JWT authentication, HMAC payload signing, and Istio ingress controls, replacing high-volume email alerts with reliable integrations to enterprise systems including ServiceNow.
- Resolved a critical data loss issue where 94 of 102 SIMs and non-RAN alarms were dropped due to missing asset associations, implementing a fault-tolerant fallback that restored complete alarm coverage in production.
- Implemented reliable webhook delivery using exponential backoff retries with a 15-minute exhaustion window, ScyllaDB-backed delivery tracking, and automated Mailgun alerts to administrators on failure.
- Engineered 5 Prometheus and Grafana dashboards across 7+ microservices, monitoring SLIs, P99 latency, error rates, vendor health, in-flight jobs, and pod-level resource utilization with real-time alerting.
- Integrated Azure Key Vault with Managed Identity across AKS-hosted microservices for centralized secret management and secure token retrieval, implementing RBAC controls that eliminated hardcoded credentials.
- Standardized structured logging and Prometheus metrics collection across distributed microservices, establishing consistent observability primitives that reduced mean time to detect and resolve production incidents.
- Served as primary on-call engineer owning production incident response, driving high-severity issue resolution and cross-team escalation coordination to maintain service reliability across distributed systems.

Software Development Engineer, Amazon Services LLC, Bellevue, WA

Oct 2022 – Mar 2025

- Architected ETL pipelines processing 1.2 billion metadata records from the FBA Valuation Engine into a centralized Redshift data warehouse, reducing reporting time by 27% and improving valuation accuracy across teams.
- Designed and optimized a high-performance Java REST API for the FBA Valuation Service backed by DynamoDB, reducing data retrieval latency by 29% and improving valuation processing performance for production workloads.
- Contributed to the FBA Ownership Transfer Service enabling seamless product transfers across Fulfillment by Amazon workflows, handling multi-party ownership scenarios and vendor-specific edge cases in production.
- Built a pre-production environment using AWS CodePipeline, CDK, and infrastructure-as-code tooling to validate FBA service changes before production, reducing deployment risk through automated monitoring and logging.
- Executed throttling configuration limiting concurrent requests during peak FBA traffic, resulting in a 95% reduction in service disruptions and preventing cascading failures under high load across distributed microservices.

Software Engineer, Uclid IT India Private Limited, India

May 2020 – Jul 2021

- Engineered modular Spring Boot microservices with layered architecture and standardized design patterns, reducing debugging time by 30% and improving maintainability across five critical projects.
- Collaborated with a cross-functional team of 4 developers to build and upgrade Java applications using Spring Boot and Spring Cloud, contributing to a 35% performance improvement and increased test coverage across projects.

Software Dev Intern, AbhiBus Services India Private Limited, India

Dec 2019 – Apr 2020

- Built a Python and React platform for real-time competitor pricing analysis, reducing manual research effort by 50 hours monthly and integrating an ML model achieving 90.4% prediction accuracy for live insights.

SKILLS

Programming Languages: Java, Go, Python, TypeScript, JavaScript, Bash, HTML, CSS

Cloud & Databases: AWS (API Gateway, S3, SQS, SNS, CloudWatch, CloudFormation, IAM, ECS, Fargate, CDK), MySQL, DynamoDB, Redshift, PostgreSQL, ScyllaDB, Azure (Key Vault, Managed Identity, AKS, Workload Identity, Azure Monitor)

Frameworks & Libraries: Spring, Spring Boot, Spring Cloud, JUnit, Mockito, React.js, Redux, Jest, Cypress, Gin

Observability & Monitoring: Prometheus, Grafana, CloudWatch, OpenAPI/Swagger, Structured Logging

Security & Authentication: JWT (RS256), OAuth2, HMAC, RBAC, Workload Identity Federation, Azure Key Vault

Containerization: Docker, Kubernetes, Helm, Istio (Ingress/Egress)

Development Tools: Git, GitHub, Maven, Jenkins, Jira, Asana, Agile/Scrum, CI/CD, QuickSight, Terraform

APIs & Architecture: REST, Microservices, Distributed Systems, Event-Driven Architecture, Kafka, gRPC, SRE

CERTIFICATES

- [AWS Solutions Architect Associate](#)

EDUCATION

Master of Business Administration, WestCliff University

Sep 2025 – Present

Master of Professional Studies in Data Sciences, University at Buffalo

Aug 2021 – Aug 2022

Bachelor's, Computer Science and Engineering, Vignan's University

May 2016 – May 2020