

# NAGA MANOJ MAKKENA

Bellevue, WA 📞 +1 (209) 622 3598 ✉ Email 🌐 LinkedIn 📁 Portfolio

## EDUCATION

**Arizona State University** | Master of Science - Computer Science(GPA : 3.83)

Dec 2023-Tempe, AZ

**International Institute of Information Technology** | B.Tech in Computer Engineering

Dec 2020- India

**Courses :** Web Development, Distributed Systems, Large Scale Data Processing, Machine Learning, Design Patterns, Cloud Computing, Deep Learning, Database Systems, Computer Vision, Data Structures & Algorithms, Operating Systems, Computer Networks, Software Engineering, Web Technologies, Cryptography, Artificial Intelligence

## TECHNICAL SKILLS

**Certifications:** AWS Developer – Associate, AWS Cloud Practitioner.

**Software & Architecture:** Java (17), Spring Boot, Spring MVC, RESTful APIs, GraphQL, Microservices & Event-Driven Arch, OOP, API Design, JSON, Proxy API Management, Security (OAuth 2.0, JWT, Certificate-based Auth, Encryption/Decryption), Agile, Scrum.

**Cloud, DevOps & Automation:** AWS (ECS, Fargate, Lambda, API Gateway, SQS, SNS, RDS, DynamoDB, CodePipeline, CloudWatch, Cognito), Docker, Kubernetes, Git, CI/CD, GitLab CI, Jenkins, AWS CDK (TypeScript).

**Data, Testing & Tools:** PostgreSQL, MongoDB, MySQL, DynamoDB Streams, Redis, Kafka, SQL, NoSQL, JUnit, Mockito, Postman, Splunk, Swagger, JProfiler.

## EXPERIENCE

**T-mobile | Software Engineer**

Mar 2025 - Present

Java, SpringBoot, Swagger, MongoDB, PostgreSQL, Postman, Splunk

Tempe, AZ

- Designed and managed scalable B2B API workflows on low-code platforms, integrating REST APIs and database lookups to enable seamless partner onboarding for T-Mobile, supporting 20+ production flows with >99% reliability.
- Debugged and optimized API integrations using Postman and Splunk, resolving payload validation, certificate authentication, and proxy connectivity issues under tight SLAs to ensure uninterrupted customer access.
- Implemented secure API flows with encryption and certificate-based authentication while maintaining USGCI/non-USGCI standards, collaborating with customer teams to streamline payloads and reduce latency by 30% in production.

**Startup Peel, Fremont CA | Software Engineer**

Jan 2024 - Mar 2025

Java, Spring Boot, Docker, Kubernetes, AWS (ECS, CodePipeline), OAuth 2.0, REST, GraphQL, Apache Kafka

Fremont, CA

- Developed high-throughput microservices and RESTful/GraphQL APIs using Java 17 (Spring Boot), Docker, and AWS ECS/Kubernetes, accelerating feature delivery by 30% and improving data retrieval by 25% with advanced PostgreSQL optimizations.
- Implemented secure authentication and authorization in Java services using OAuth 2.0 (PKCE) and JWT, ensuring robust endpoint protection and maintaining a strong security posture across production systems.
- Automated CI/CD pipelines with AWS CodePipeline and GitHub Actions, reducing manual deployments and errors, while integrating Redis caching and Apache Kafka to cut database load and system latency.

**Arizona State University | Software Engineer**

Jan 2023 - Dec 2023

Java, AWS Lambda (Serverless), AWS CDK (TypeScript), DynamoDB Streams, AWS SNS

Tempe, AZ

- Developed efficient event-driven microservices primarily using Java, deployed strategically onto AWS Lambda serverless compute, successfully achieving a measurable 25% reduction in average cold start latency times experienced.
- Constructed reliable serverless data processing workflows leveraging DynamoDB Streams and AWS SNS notifications, integrating with Java Lambda functions for near real-time event propagation with consistently low operational delay metrics.
- Automated provisioning of AWS resources (Lambda, IAM roles) for Java applications using CDK (TypeScript), accelerating new environment setup time by 60% and ensuring repeatable, error-free infrastructure deployments reliably.

**Prozontech Solutions | Software Engineer**

Jan 2021 - Dec 2021

Java, Spring Boot, Docker, Apache Kafka, AWS SQS, REST API, MongoDB, MySQL, GitLab CI, Terraform

Hyderabad, India

- Engineered event-driven microservices and REST APIs using Java (Spring Boot), containerized with Docker and deployed via AWS Fargate, achieving a 20% reduction in infrastructure costs while enhancing scalability and reliability across production systems.
- Designed and integrated asynchronous messaging with Apache Kafka and AWS SQS within Java services, decoupling system components and improving responsiveness and throughput by 30% under load.
- Enhanced software quality and delivery by developing JUnit/Mockito tests (increasing legacy coverage to 75%), using JProfiler for performance tuning, and automating CI/CD pipelines with GitLab CI/Terraform, accelerating releases by 35% in Agile workflows.

## ACADEMIC PROJECTS

**Context-Aware Q&A System with RAG**

Python, RAG, LangChain, OpenAI API, Vector search, FAISS, Sentence Transformers

- Developed Python RAG using LangChain, FAISS, OpenAI API, Sentence Transformers embeddings, processing documents via semantic search to boost accuracy and reduce hallucinations by grounding responses in provided knowledge.

**Automated LLM Deployment & Monitoring Pipeline**

LLMops, Python, MLflow, Docker, AWS SageMaker & ECS

- Developed an automated LLMops pipeline (Python, MLflow, Docker, AWS) for deploying and monitoring a text summarization application, enabling reliable updates and significantly improving operational efficiency through automated workflows.