# Mohana Saravanan's CV

Senior Software Engineer

## Contact Information

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**Official Portfolio**: [mohanasaravanan.in](https://mohanasaravanan.in)

## Professional Summary

Senior Software Engineer with **5+** years of experience in **Java Spring Boot**, **Golang**, and **AWS** cloud-native development. Proven track record of delivering over **$2M** in client value through automation, modernization, and efficiency improvements. Skilled backend Engineer in enterprise application designing secure, scalable microservices, REST APIs, Distributed Systems and DevSecOps pipelines on AWS. Adept at cross-functional collaboration, leading client-focused initiatives, and driving innovation in multi-vendor environments.

## Key Skills

- **Programming Languages & Frameworks**: Java (Spring Boot), Golang, Shell scripting
- **Cloud and DevOps**: Amazon Web Services (AWS) (AWS - Lambda, EKS, IAM, KMS, SQS, CloudWatch), Terraform, Docker, Helm, Kubernetes, CI/CD
- **Microservices & Architecture**: RESTful API design, Event-driven architecture (Apache Kafka, AWS Simple Queue Service (SQS), AWS Step Functions), Serverless architectures, Domain-Driven Design (DDD)
- **Security & DevSecOps: AWS** Secrets Manager, API Security, Compliance automation, Secure coding practices, Static and Dynamic Application Security Testing(**SAST, DAST**)
- **Monitoring & Observability:** Splunk, ELK Stack, Datadog, Prometheus, Grafana, Log tracing, SLO/SLA monitoring, performance tuning
- **Databases:** PostgreSQL, Amazon DynamoDB, Amazon S3, Amazon Aurora, IMS DB2, Relational Databases, SQL and NoSQL Data modeling
- **Emerging Technologies:** AI/ML integration, Generative AI (AWS AI services, MLOps basics), automation using intelligent tooling

## Education

B.Sc. in Computing & Design – BITS Pilani

Work Integrated Learning Program | Graduated: 2025 |

(Completed alongside full-time employment at HCLTech)


## Key Achievements

- Delivered $0.**5M** in client value by automating Docker image upgrades within CI/CD pipelines, significantly reducing manual intervention, eliminating version drift, and improving deployment reliability across multiple environments
- Generated $0.7M in value by integrating SAR (Service Access Representation) and AAR (API Access Representation) into a combined z/OS REST implementation, simplifying API access and reducing duplication of effort
- Achieved $0.4M in efficiency gains by developing internal testing tools that streamlined functional and integration testing, enabling faster validation cycles and easier adoption for new developers
- **Boosted developer productivity** by integrating **GitHub Copilot Chat AI** into test automation workflows, enabling intelligent test case generation, faster debugging, and automated code suggestions that reduced manual effort and improved test coverage
- Improved client delivery worth $0.4M by creating additional Gradle Spotless scripts for automated code formatting and verification, ensuring consistent coding standards across teams and minimizing review overhead
- Recognized with USAA 'Excellence Award' and '4ward Award' for innovation and efficiency improvements in secure application development consistently


## Professional Experience

HCLTech (Client: USAA)

Senior Software Engineer | Jul 2019 – Present

- Designed and implemented **enterprise-grade backend microservices** using Spring Boot for high-availability financial applications to replace legacy Java monoliths and mainframe based interconnected services, improving modularity and reducing deployment overhead
- Developed multiple **RESTful APIs** in Spring Boot for high-volume financial applications, achieving improved performance, scalability, and maintainability
- Improved API performance by implementing asynchronous event-driven messaging (**Kafka/SQS**), and database optimization techniques
- Implemented **Swagger/OpenAPI** for REST API documentation and Postman collections for automated testing, streamlining client integration
- Implemented unit and integration testing for Spring Boot microservices using JUnit 5 and Mockito, ensuring high-quality, reliable code delivery
- Applied **PIT mutation testing** to validate test effectiveness, achieving in both **100**% unit test coverage and strong mutation coverage across critical services

- Applied data structures and algorithms to optimize API performance, reduce latency, and improve system scalability
- Integrated test coverage reporting (**JaCoCo**, **SonarQube**) into CI/CD pipelines, enforcing quality gates and maintaining 100% code coverage
- Conducted mock-driven testing for REST APIs, simulating external dependencies with Mockito and **WireMock** to ensure consistent test results
- Applied design patterns and **domain-driven design** (DDD) principles in microservices development, enhancing maintainability and reducing technical debt
- Worked in **multi-vendor environments**, coordinating with cross-functional teams, external partners, and stakeholders to deliver integrated enterprise solutions
- Contributed to high-level system design (HLD) by defining functional and non-functional requirements, service boundaries, and fault-tolerance strategies
- Provided **mentorship and knowledge-sharing sessions** to junior developers, fostering technical growth and improving team productivity
- Collaborated in Agile environment with cross-functional teams, conducting code reviews, sprint planning, and backlog grooming to ensure high-quality deliverables
- Ensured high availability, scalability, and observability of production systems supporting enterprise-scale workloads
- Participated in secure **CI/CD** pipeline creation, management and automation by integrating Static Application Security Testing (**SAST)**, Dynamic Application Security Testing (**DAST)** scans, TF validators and automated test cases
- Automated infrastructure provisioning and compliance by using **Terraform** and AWS CloudFormation
- Implemented monitoring solutions using **Datadog**, **Splunk**, **ELK Stack (Elasticsearch, Logstash, Kibana)**

## Certifications

AWS Certified Cloud Practitioner (2022)

AWS Certified Developer – Associate (2024)

AWS Certified AI Practitioner (2025)

Agile SAFe Practitioner (2024)

Workato Pro 2 Certified (2021)

Guidewire Associate Developer - Upgraded to Kurfi (2025)