

# Sr. Full Stack Java Developer

## Sekhar Sai

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### PROFESSIONAL SUMMARY

**Full Stack Java Developer** with **8+ years** of cross-industry experience across **payments, healthcare, and supply chain** domains. Currently at **Mastercard**, building **EMVCo 3DS** transaction pipelines, **AI-powered payment agents**, and high-throughput microservices on **Java 17+**, **Spring Boot**, **Spring Framework** and **Spring Web Flux**. Proficient in **event-driven architecture**, **OAuth2/JWT security**, **Kubernetes/PCF deployments**, and full-stack development with **Angular** and **React.js** — consistently delivering **PCI-DSS-compliant**, high-performance systems at enterprise scale.

### TECHNICAL SKILLS

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|-----------------------|--|
| Languages             | Java 17+, TypeScript, JavaScript, SQL, PL/SQL, Python  |
| Frameworks            | Spring Boot, Spring Web Flux, Spring MVC, Spring Data JPA / Hibernate, Angular, React.js, Node.js, Axon Framework, Project Reactor |
| AI & LLM              | LLM API Integration, AI Agent Development, MCP (Model Context Protocol) Server Implementation, Prompt Engineering                  |
| Build Tools           | ANT, Maven, Gradle, Build Forge, CMAKE, MS Build   |
| CI/CD Tools           | Jenkins, Bamboo, Build Master, CI/CD   |
| Payments & Security   | 3-D Secure (EMVCo 3DS), ISO 8583, OAuth2 / JWT, PCI-DSS, Challenge Flow Orchestration, Directory Server (DS) & ACS Integration     |
| Version Control Tools | GIT, GITHUB, Bitbucket, SVN  |
| Containerization      | Docker, Docker Swarm, Kubernetes   |
| Monitoring Tools      | Splunk, Cloud Watch, ELK, Grafana, Prometheus  |
| Messaging             | Apache Kafka, RabbitMQ, Axon Event Bus, Event-Driven Architecture.   |
| Testing               | Junit 5, Mockito, Selenium, TDD, Integration test, SonarQube, Checkmarks   |
| Database              | DynamoDB, MongoDB, Oracle, SQL Server, MySQL, PostgreSQL, RDBMS  |
| Web Servers           | Apache Tomcat, Nginx, Apache Http  |

**Client:** Mastercard, O'Fallon, MO

**November 2024 – Present**

**Role:** Sr. Full Stack Java Developer

#### Responsibilities:

- Design, develop, and maintain production-grade **RESTful microservices** using **Java 17+** and **Spring Boot**, adhering to SOLID principles and clean architecture to power Mastercard's global payment processing platform handling millions of transactions daily.
- Implement secure **3DS challenge flow orchestration**, directory server (DS) callouts, and access control server (ACS) integrations, ensuring full compliance with **EMVCo 3-D Secure** standards across card-not-present transaction flows.

- Design and maintain **authorization request/response processing pipelines** — ISO 8583 message parsing, transaction routing, and real-time approval/decline decisions at scale.
- Develop **AI-powered agents** leveraging LLM APIs integrated with Spring Boot backends to automate transaction anomaly detection, dispute resolution workflows, and intelligent payment routing decisions.
- Integrate **AI coding assistants GitHub Copilot** into daily development workflow for unit test generation, code reviews, refactoring suggestions, and documentation — **reducing time spent on non-feature work by 35%**.
- Utilize **Claude Code** for context-aware code completion and multi-file refactoring across complex payment domain codebases — cutting average feature development time from 3 days to 1.5 days.
- Implement custom **MCP (Model Context Protocol) servers** that expose internal microservice capabilities as tools consumable by AI agents, enabling intelligent orchestration across Mastercard's payment ecosystem.
- Build and maintain **RESTful and reactive APIs** secured with **OAuth2/JWT** authentication and authorization, safeguarding cardholder and transaction data in compliance with PCI-DSS standards.
- Implement reactive programming patterns via **Spring WebFlux** and **Project Reactor** for non-blocking, asynchronous service communication, optimizing throughput for high-volume card authorization and settlement pipelines.
- Develop responsive **Angular** dashboards (TypeScript, HTML5, CSS, Node.js) enabling real-time monitoring of transaction volumes, authorization rates, and fraud signals.
- Implement event consumers and subscribers using **Axon Framework** to process domain events (payment authorized, transaction reversed, chargeback initiated), ensuring reliable asynchronous communication across distributed microservices.
- Design **event-sourced aggregates** for payment transactions and dispute management, maintaining full audit trails for compliance and fraud investigation.
- Deploy and manage microservices on **Pivotal Cloud Foundry (PCF)** and **Kubernetes** with auto-scaling, blue-green deployments, and zero-downtime releases — maintaining **99.99% uptime SLAs** for critical payment services.
- Develop database layers using **Spring Data JPA/Hibernate** with optimized query strategies and connection pooling for high-frequency transaction ledger read/write operations.
- Optimize performance through **Redis caching** for BIN table lookups, exchange rate data, and merchant config, reducing database load and improving authorization response times.
- Implement structured logging (**SLF4J/MDC**) and distributed tracing using correlation IDs, enabling end-to-end visibility of transaction journeys from initiation to settlement.
- Maintain **CI/CD pipelines** using Jenkins and GitHub Actions for automated build, test, and deployment workflows enabling rapid delivery of payment service enhancements.
- Write comprehensive **unit and integration tests** using JUnit 5 and Mockito across transaction processing, fraud rule engines, and API gateway layers; enforce coding standards with Lombok and SonarQube.
- Orchestrate **containerized deployments** using Docker and manage workloads on Kubernetes, ensuring scalability and resilience under peak transaction load.

**Environment:** Java 17+, Spring Boot, Spring WebFlux, Axon Framework, Angular, TypeScript, OAuth2/JWT, 3-D Secure (EMVCo 3DS), ISO 8583, Docker, Kubernetes, PCF, Redis, Kafka, JUnit 5, SonarQube, Jenkins, GitHub Actions, PostgreSQL, AWS

**Client:** Blue Cross and Blue Shield of Kansas City, Kansas City, MO

**December 2022 – October 2024**

**Role:** Full Stack Java Developer

#### Responsibilities:

- Delivered microservices and REST APIs in **Spring Boot**, enabling modular releases and reducing defect leakage by **20%**.
- Built **React.js** front-end with reusable components, reducing UI development cycle by **30%** and improving cross-application consistency.
- Implemented **Kafka & RabbitMQ** pipelines for real-time data processing, reliably handling **100K+ daily transactions**.
- Integrated **AWS Lambda & API Gateway**, cutting server infrastructure costs by **25%** through serverless computing.
- Managed microservices using **Docker, Kubernetes, and OpenShift** to streamline CI/CD pipelines across multiple environments.
- Maintained and upgraded UI applications using **React.js, TypeScript, JavaScript, CSS3, jQuery, AJAX**, and HTML5 with React Router for multi-page navigation.
- Applied **DAO, Factory, and MVC** design patterns, improving maintainability and reducing code complexity by **15%**.
- Automated builds and deployments using **Maven, Jenkins, and Adobe Cloud Manager**, reducing deployment errors by **40%**.
- Designed RESTful APIs via **AWS API Gateway and Lambda** to process Excel files and ingest data into PostgreSQL via S3-triggered functions.
- Maintained data access layer using **Hibernate ORM**; authored stored procedures and functions in **PL/SQL** for Oracle database operations.

- Developed functional test automation using **Selenium and JUnit**; provided on-call support for production SQL and NoSQL databases.

**Environment:** Java, Spring Boot, React.js, TypeScript, JavaScript, Kafka, RabbitMQ, AWS Lambda, API Gateway, S3, Docker, Kubernetes, OpenShift, Hibernate, Oracle, PostgreSQL, PL/SQL, Selenium, JUnit, Maven, Jenkins, AEM

**Client:** US Foods, India

June 2020 – July 2022

**Role:** Senior Java Developer

### Responsibilities:

- Developed **Spring MVC/AngularJS** applications with REST/JAX-RS services, increasing system throughput by **25%**.
- Responsible for developing UI pages using **HTML5, CSS3, AngularJS, JavaScript, jQuery, AJAX and JSON**
- Introduced **Selenium TDD** automation framework, reducing manual testing effort by **50%**.
- Diagnosed and resolved performance bottlenecks across application layers, improving average response time by **30%**.
- Implemented API monitoring and logging using **Apigee, CloudWatch, and Log4j** to track and troubleshoot production performance issues.
- Performed **SQL query optimization** using indexing, partitioning, and execution plan analysis, cutting database response times by **25%**.
- Built serverless microservices integrating **AWS Lambda, S3, CloudWatch, and API Gateway**; worked extensively with EC2, ELB, and Security Groups.
- Established **CI pipelines** using Jenkins with Maven plugins for multi-environment automated deployments.
- Used **Jira** for bug tracking, sprint planning, and Agile team collaboration.

**Environment:** Java, Spring MVC, AngularJS, JAX-RS, Jenkins, Maven, Selenium, AWS (Lambda, S3, EC2, CloudWatch, API Gateway), Apigee, Log4j, SQL, Jira

**Client:** HDFC Bank, India

September 2017 – April 2020

**Role:** Java Web Developer

### Responsibilities:

- Built **loan servicing and financial systems** using Struts, JSP, and Java, improving transaction accuracy by **20%** across payment and servicing workflows.
- Worked in using **ReactJS components, Forms, Events, Keys, Router, Animations and Flux concepts**.
- Developed reusable **GUI frameworks**, reducing duplicate code by **35%** and accelerating feature delivery.
- Authored test plans and executed **TDD** across unit, regression, and integration testing, cutting UAT cycle time by **15%**.
- Monitored AWS resources using **CloudWatch**, configuring alarms for EBS, EC2, RDS, and S3 metrics.
- Automated **data validation and cleanup** using SQL scripts, improving data quality and reducing errors by **35%**.
- Developed error handling, pagination, and **API versioning** strategies ensuring scalability and backward compatibility.
- Gained deep **fintech domain expertise** in loan origination, payment processing, and account servicing within a major banking environment.

**Environment:** Java, Struts, JSP, SQL, PL/SQL, AWS CloudWatch, TDD, JUnit, HTML, CSS

## EDUCATION

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**Bachelor of Technology — Computer Science & Engineering**

V R Siddhartha Engineering College, India