Karthik Edhala | Software Engineer

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PROFESSIONAL SUMMARY

- Java Developer with **3+ years** of experience building enterprise-scale applications using **Java 17, Spring Boot, and microservices.**
- Skilled in secure API development with **OAuth2, JWT, REST, and GraphQL**, applying advanced Java concepts including multithreading, collections, and JVM tuning to deliver scalable, low-latency solutions.
- Hands-on with **relational and NoSQL databases (PostgreSQL, MySQL, MongoDB, Redis)** integrated via **Hibernate/JPA**, and experienced in event-driven architectures using Kafka and RabbitMQ.
- Strong background in cloud-native development with **AWS (EC2, S3, RDS, EKS, Lambda)**, containerization with Docker/Kubernetes, and CI/CD automation using Jenkins, GitHub Actions, Terraform, and CloudFormation.
- Solid foundation in **data structures, algorithms, and Agile practices**, with additional experience in modern front-end frameworks (React, Next.js) for full-stack delivery when required.

TECHNICAL SKILLS

- **Programming Languages:** Java (SE8+), Jakarta EE, Python, JavaScript (ES6+), TypeScript
- **Frameworks & APIs:** Spring Boot, Spring MVC, Spring Security, Spring Cloud Gateway, Spring Data JPA, WebFlux, Hibernate, JPA, OAuth2, JWT, RESTful APIs, GraphQL, gRPC
- **Backend & Messaging:** Microservices Architecture, Apache Kafka, RabbitMQ, Redis, Node.js, Express.js, Apache Camel, Camunda
- **Frontend Development:** React.js, Next.js, HTML5, CSS3, Tailwind CSS, Bootstrap
- **Databases:** PostgreSQL, MySQL, Oracle, SQL Server, MongoDB, DynamoDB
- **Cloud & DevOps:** AWS (EC2, S3, RDS, EKS, Lambda, API Gateway, CloudFormation, CloudWatch), Docker, Kubernetes, Jenkins, Bamboo, Terraform, Spinnaker
- **Testing & Tools:** JUnit, Postman, Maven, Gradle, Git, GitHub, Bitbucket, JIRA, IntelliJ, VS Code, SonarQube
- **Methodologies & Core CS:** Agile (Scrum), Test-Driven Development (TDD), Design Patterns, Data Structures and Algorithms (DSA), Secure Coding Practices
- **Soft Skills:** Analytical Thinking, Curiosity & Continuous Learning, Problem-Solving Ability, Adaptability, Time Management

WORK EXPERIENCE

Glorium Technologies, New Jersey | Software Engineer   **Jan 2025 - Current**
- Developed enterprise web applications using **Java 17 Spring Boot and Hibernate** achieving **38%** faster load times and lower defects through automated testing (JUnit).
- Led dashboard modernization with **React.js** front end and **Spring Boot APIs** resulting in **22% higher user retention** and **17% lower bounce rate.**
- Engineered hybrid storage for real time analytics with **PostgreSQL Redis** and **DynamoDB** achieving **2.5× higher query throughput** on high concurrency endpoints.
- Migrated **12+ microservices** to **AWS EKS EC2 Lambda RDS** using **Terraform** and **CloudFormation** reducing deployment time to **under 12 minutes.**
- Built **30+ CI/CD pipelines** in **Jenkins** and **GitHub Actions** with test gates and rollbacks reducing release failures by **40%.**
- Optimized high-throughput APIs by fine-tuning **Java collections, thread pooling, and JVM garbage collection** settings, reducing latency by **35%** under peak loads.
- Streamlined **ETL pipelines** with **Apache Kafka Spring Batch** and **Airflow** automating **8 TB+** monthly ingestion with dynamic partitioning and schema evolution.
- **Improved delivery efficiency by 50% and cut cloud spend by 18% in 9 months** by implementing Agile Scrum, TDD, peer code reviews, and cost monitoring with AWS CloudWatch, Prometheus, and Terraform.

Sage Softtech, India | Software Engineer   **Jan 2021 – Jul 2023**
- Developed and optimized RESTful microservices using **Java 17** and **Spring Boot**, implementing features such as automated ticket classification that improved team productivity by **~15%.**
- Participated in **Agile ceremonies** (daily standups, sprint planning, and retrospectives) and used **JIRA** for backlog grooming, ensuring stories aligned with acceptance criteria and business goals.
- Implemented concurrent data sync services using **Java multithreading, asynchronous I/O,** reducing sync execution time by **45%** for high-volume workloads.
- Assisted in building data ingestion and transformation workflows using **Java-based ETL frameworks** and scheduled pipelines via **Spring Batch** and **Apache Airflow**, automating processing of **~100k** daily log records.
- Supported server upgrades, dependency management, and patching of **Java/Spring Boot** applications hosted on **AWS EC2, strengthening performance, security, and reliability**.
- Collaborated with QA engineers to implement and fix unit/integration tests with **JUnit and Mockito**, improving overall test coverage by **over 30%** in two quarters.

- Integrated monitoring and alerting for Spring Boot microservices using **AWS CloudWatch, S3, and Lambda**, reducing incident resolution time from **2 hours to under 30 minutes**.
- Improved performance of internal Java APIs by applying multithreading and asynchronous processing, reducing execution time of high-volume data syncs by **over 40%.**

EDUCATION

Master's in Computer Science   **May 2025**
Clark University, MA, USA

PROJECTS & ACHIEVEMENTS

Patient Management Microservices System
- Developed a microservices-based patient management system using Java and Spring Boot with REST APIs for core functionality and gRPC for efficient inter-service communication.
- Implemented Apache Kafka as message broker for asynchronous communication and event-driven architecture between microservices.
- Created a centralized API Gateway with Spring Cloud Gateway that enforces JWT authentication and Spring Security filters before routing requests to the correct microservice, ensuring secure access control.
- Dockerized all microservices for portable, consistent deployments and implemented secure end-to-end request flow: **browser → API Gateway → JWT validation → route → target microservice**.

AI Mail Assistant
- Built a Gmail Chrome extension with Java backend that integrates OpenAI API to generate contextually appropriate email responses, adding an AI Reply button to Gmail's compose and reply to interfaces.
- Streamlined email workflow by automatically analyzing email context and tone to generate professional responses, reducing email composition time and improving communication efficiency.

LeetCode Problem Solving| Link
- Solved **50+** coding problems across data structures and algorithms including arrays, linked lists, trees, dynamic programming, and graph algorithms, strengthening problem-solving skills and coding proficiency.

CERTIFICATIONS

- **AWS Certified DevOps Engineer – Professional** | Amazon Web Services | Aug 2025 | **Credential**
- **AWS Certified Developer – Associate** | Amazon Web Services | Jun 2025 | **Credential**
- **Advanced Software Engineering Job Simulation |** Walmart (via Forage) | Apr 2025