SRILATHA MADDINENI

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EXPERIENCE

Software Engineer | Arthrex, Florida   **Feb 2025- present**

- Develop secure, scalable UI features using **React** integrated with **Spring Boot microservices**, supporting fast data exchange for **100,000+** concurrent users.
- Built and maintained distributed microservices using **Spring Boot, Spring Cloud**, and API-first design; implemented resilience patterns such as **Circuit Breaker (Resilience4j)** to ensure fault-tolerance and stable service communication.
- **Optimize** high-volume workflows by tuning **PostgreSQL** queries and applying **Spring Data JPA** pagination, increasing retrieval speed by **25–30%**.
- **Implement** asynchronous event workflows using **Kafka producers/consumers**, reducing API load, and enabling real-time communication across services.
- Utilized LLM-based AI tools including **GitHub Copilot** and **Cursor** to accelerate development workflows, assist with debugging, refactoring, SQL optimization, and unit test generation across backend services.

Research Assistant| George Mason University, Fairfax, VA   **Feb 2023-Dec 2024**

- Built and maintained backend modules and REST APIs using **Java, Spring Boot, Spring MVC, and JPA**, improving workflow automation and system reliability.
- Enhanced performance by applying **Java debugging, profiling, functional programming patterns (Streams), and optimized database queries** for high-volume processing.
- Developed automated **JUnit + Mockito** test suits and integrated them into CI/CD workflows, ensuring consistent, high-quality deployments.

Associate Software Engineer| United Health Group, Hyderabad, India   **Jun 2021-Dec 2022**

- Built premium claims-history features using **Spring Boot REST APIs, service layers, and JPA pagination**, improving data retrieval speed by **30%** for provider workflows.
- Developed secure, high-performance UIs with **React (custom hooks, React Query, controlled forms, routing)**, reducing navigation friction across claims and payment modules.
- Strengthened platform security by implementing **MFA with Spring Security + OAuth2/JWT** and React-based OTP flows, ensuring compliant access to financial data.
- Ensured reliable releases by implementing **JUnit + Mockito unit testing** and automating deployments through **Jenkins CI/CD**, reducing defects and improving delivery consistency.
- Contributed to **cloud migration initiatives** (DB2 → PostgreSQL, Unix → Linux on Azure), adapting services for cloud-native scalability and reliability.

Software Engineer Intern| Sahakar Solutions, Hyderabad, India   **Jun 2020-May 2021**

- Built a healthcare web application using **React , Node.js**, to store the visited patient data and enabling 24/7 access to patient data.
- Implemented **RESTful API** integration and applied **SEO optimization** techniques for improved visibility.
- Collaborated with QA teams to write **unit and integration tests**, ensuring data accuracy and system reliability.

ACADEMIC PROJECTS

Cloud Mart   **Mar 2025**

- Built cloud-native e-commerce platform with **React, Node.js, Terraform, EKS, Lambda, Code Pipeline, DynamoDB, Amazon Bedrock**, serving 1000+ users**.**

Blog Platform with Security   **Jan 2024**

- Developed full-stack **blog platform** using **React, JavaScript, Spring Boot, Hibernate, Spring Security, JWT, PostgreSQL, Docker and REST APIs**, improving secure content management by **30%**.

TECHNICAL SKILLS

Programming Languages and Databases: Java, C/C++, Python, JavaScript, MYSQL, MongoDB.

Backend and Microservices: Spring Boot, Spring MVC, Spring Data JPA, Spring Cloud, REST APIs, JPA/Hibernate

Cloud and Containerization: Microsoft Azure, Docker, Kubernetes, CI/CD (Jenkins, GitHub Actions)

Testing and Quality: JUnit, Mockito, Integration Testing, API Testing, Postman

Tools and Version Control: Git, GitLab, Maven, IntelliJ, VS Code, Eclipse, Linux/UNIX

Web Technologies and Services: React, Node.js, HTML, CSS, JavaScript, REST APIs, SOAP, XML, JSON

AI-Assisted Development Tools: Cursor, GitHub Co-Pilot

EDUCATION

Master's in Computer Science: George Mason University   **Jan 2023-Dec 2024**

Bachelor's in Information Communication and Technology: SASTRA University, India   **Jun 2017-May 2021**