

ManikantaReddy Annem

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Professional Summary

Experienced Software Engineer with 3.5 years of expertise in Java, Spring Boot, Microservices, and Blockchain (R3 Corda), specializing in scalable backend development and distributed systems. Proficient in REST API design, event-driven architecture, and optimizing CI/CD pipelines (Jenkins, Docker) for high-performance deployments. Holds a Master's degree in Computer Science with a strong foundation in software development and system design.

Technical Skills

Programming: Java, Python, Kotlin, C, R, HTML/CSS

Databases: MySQL, PostgreSQL, H2, Liquibase, JDBC, Hibernate

Frameworks & Libraries: Spring, Spring Boot, R3 Corda, Angular, JUnit, Gradle, Maven, Spring Security, Spring Data JPA

Developer Tools: Git, GitLab, Swagger, Docker, AWS, VS Code, Jira, Postman, Confluence

DevOps & CI/CD: Jenkins, Docker, Linux Command Line, CI/CD, GitHub Actions, TestContainers

Data & Analytics Tools: Tableau, QlikView, R Studio, Jupyter Notebook

Methodologies: Agile, Scrum

Additional Skills: Microservices, REST APIs, RabbitMQ, Apache Kafka, WebSockets, API Security

Work Experience

Tata Consultancy Services (TCS)

Hyderabad, India

Systems Engineer/ Java Backend Developer

Aug 2021 – Aug 2023

- Developed secure **blockchain applications** for **Vodafone Group PLC** using R3 Corda and Java, designing smart contracts and ensuring data integrity via Distributed Ledger Technology.
- Implemented advanced **smart contract logic in R3 Corda** using Java with CorDapps, optimizing state management, contract verification, and flow automation to enhance transaction security and execution efficiency in **distributed ledger applications**.
- Developed and **integrated 10+ secure APIs** for Corda blockchain applications, enabling seamless smart contract execution and ledger synchronization. Optimized transaction handling, reducing latency by 20%, while ensuring efficient communication using **Postman and Swagger**.
- Integrated **RabbitMQ** with **Spring AMQP** in R3 Corda applications using Java, implementing durable queues, publisher-confirm mechanisms, and **message routing** to ensure reliable asynchronous transaction processing and optimized event-driven workflows.
- Engineered high-performance backend modules for **Corda blockchain using Java**. Implemented event-driven architecture and **optimized data persistence, improving transaction throughput** and ledger synchronization.
- Optimized **CI/CD pipelines** using **Jenkins and Docker**, automating deployments and **integrating JUnit, Mockito, and TestContainers**. Reduced deployment time by 40% and improved testing efficiency by 15%.
- Worked with logging frameworks like Log4j and SLF4J**, implementing structured logging strategies to enhance debugging and monitoring in application logs.
- Optimized **Liquibase scripts** for seamless database migrations across environments, resolving **PostgreSQL and H2** issues via **JDBC and Docker**, reducing migration time by 20% and earning recognition for technical expertise.
- Resolved **critical production issues** and implemented **feature enhancements in Corda applications**, leveraging rigorous **debugging, unit testing, and AWS CloudWatch** monitoring to maintain 99.9% system uptime and improve transaction reliability.
- Standardized development guidelines, **API requirements, and CI/CD best practices in Confluence**, ensuring **streamlined Git-based code reviews** across multi-vendor teams.

FuGenX

July 2020- July 2021

Software Engineer Intern/Java Developer

Hyderabad, India

- Developed **secure banking backend services** using **Java, Spring Boot, and RESTful APIs**, adhering to **industry best practices and Git-based version control**.
- Designed and integrated event-driven microservices** using **Spring Boot and Apache Kafka**, ensuring reliable asynchronous messaging and improving platform responsiveness by **20%**.

- **Led API development** and documentation by leveraging **Swagger and OpenAPI**, improving inter-team collaboration and streamlining API versioning strategies.
- Implemented **secure authentication** and **authorization** using **Spring Security, OAuth 2.0, and JWT**-based token management, optimizing session handling and access controls for banking services.
- Enhanced the security of the system API by integrating **Spring Security with JWT authentication and RBAC**.
- **Enhanced database performance** by optimizing **JPA/Hibernate queries**, implementing **connection pooling** with **HikariCP**, and fine-tuning SQL queries in **PostgreSQL and H2**.
- Integrated backend services with front-end applications, ensuring smooth data exchange between **Spring Boot APIs** and **Angular UI components** with WebSocket-based real-time updates.
- Implemented structured **Git-based code reviews**, enforcing Java best practices, **security rules**, and **CI/CD** compliance to improve code quality and maintainability.

Amphisoft

Jan 2020 - June 2020

Apprenticeship/Java Developer

Coimbatore, India

- Developed foundational **Java applications**, focusing on **object-oriented programming (OOP)**, design patterns, and best coding practices.
- Worked with **MySQL and PostgreSQL databases**, writing optimized **SQL queries and stored procedures** for data storage and retrieval.
- **Gained hands-on experience in Hibernate ORM**, mapping Java objects to relational database entities while understanding lazy/eager loading concepts.
- Assisted in integrating **microservices** by consuming external APIs and handling **JSON data processing** with Jackson.
- Implemented **multithreading and asynchronous** programming in Java using **ExecutorService, CompletableFuture, and parallel streams**, optimizing task execution and reducing processing time for large datasets by **35%**.
- Gained hands-on experience in setting up Jenkins pipelines and Docker containers for automated CI/CD workflows.
- Practiced unit testing with **JUnit and Mockito**, developing test cases to validate business logic and prevent regressions.
- Contributed to **Agile sprints, engaging in sprint planning**, backlog refinement, and retrospectives, while implementing **Scrum methodologies** to improve feature delivery.

Education

Fitchburg State University

Aug 2023 – May 2025

Master's in computer science

Fitchburg, MA

QIS College of Engineering and Technology

Jun 2018 – Jun 2021

Bachelor of Technology

Andhra Pradesh, India

Certifications

- Spring 6 with Spring Boot 3, LinkedIn
- Corda Certified Developer, R3
- Cyber Crime and Security, Indian Servers
- Data Structures Certification, ABC Technologies

Academic Projects

- **McDonald's Customer Sentiment Analysis:** Used **NLP** and **SVM** to extract 99.17% sentiment from 33,000+ McDonald's customer reviews. Predictive modeling and customer satisfaction insights were improved using **F1 Score and MSE**.
- **Restaurant Billing System:** Developed a robust restaurant billing system using **Java**, leveraging object-oriented principles like **inheritance, polymorphism, and encapsulation** to create a modular, reusable, and scalable solution. Implemented efficient order tracking, food item management, and chef allocation, ensuring seamless and optimized operations.
- **Library Management System Using Tkinter and SQLite:** Built a user-friendly library administration system with **Tkinter** for the GUI and **SQLite** for database management, streamlining book management, **user authentication, and real-time transactions**. Improved student and staff data integrity with quick **CRUD operations**.
- **Spring Boot Laptop Management System:** Developed a **Spring Boot-based application** for managing laptops using Service-Repository architecture and **Dependency Injection**. Implemented a structured **CRUD service** to add, retrieve, and manage laptop entities, leveraging **Spring annotations (@Component, @Service, @Repository)** for efficient bean management.