



Aravind Vallamkonda

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Fairfax, VA

PROFESSIONAL SUMMARY

Software Engineer with over 2 years of experience in building and scaling financial technology systems using **Java, Spring Boot, React.js** and cloud-native technologies. Specialized in developing distributed systems processing millions of daily transactions, with expertise in **RESTful APIs, Apache Kafka, Redis, and PostgreSQL**. Track record of optimizing system performance and implementing real-time processing solutions, resulting in 150% efficiency improvements. Adept at cloud technologies (**AWS, Docker, Kubernetes**) and DevOps practices (**Jenkins, CI/CD**). Holds a **Master's degree** in **Computer Science** from **George Mason University**. Known for combining strong technical skills with effective team collaboration and mentorship abilities.

TECHNICAL SKILLS

Programming Languages : Java, Python, C, TypeScript

Technologies and Frameworks : Spring Boot, Servlets, JSP, JDBC, Spring

Web Technologies : Javascript, React.js, HTML, CSS, XML, JSON

Cloud Technologies : AWS(EC2, S3, Lambda, RDS, CloudFormation), Salesforce

Messaging Systems: Apache Kafka, RabbitMQ

Caching Systems: Redis, Memcached

Web Services: SOAP, REST

Databases: Postgres, Oracle, MySQL

Application/ Web Server: Apache Tomcat, Nginx

Devops: Docker, Docker-Compose, Kubernetes, Jenkins, Rancher

Testing Frameworks: JUnit, Mockito

Repository Systems /Version Controlling Tools: GIT and GitHub, Tortoise SVN

IDE & Build Tools: Eclipse, NetBeans, Gradle, Maven, JIRA

Methodologies: Agile, Waterfall

Operating Systems: Windows, Linux, MacOS

EDUCATION

Master of Science in Computer Science
George Mason University, Fairfax, Virginia

(Jan 2023 –Dec 2024)
CGPA: 3.93/4

Bachelor of Technology in Computer Science and Engineering
Amrita School of Engineering, Bangalore, India

(Aug 2016 –July 2020)
CGPA: 8.00/10

CERTIFICATIONS

- AWS Certified Developer – Associate
- Confluent | Developer Skills for Building Apache Kafka

(Oct 2024- Oct 2027)
(Dec 2021 - No Expiry)

EXPERIENCE

Employer: National Payments Corporation Of India
Address: Hyderabad, India

(Nov 2020 –Dec 2022)

Role: Associate Application Development

Project name: National Electronic Toll Collection (FASTag) & NETC Backoffice

Brief description: NETC FASTag is a passive RFID tag used for making toll payments directly from the customer's linked prepaid, savings, or current account. Affixed to the vehicle's windscreen, it allows seamless drive-through at toll plazas without the need to stop for toll payments. NETC is the Online component in which all the transactions are processed and stored. NETC Backoffice is the Settlement system where the settlement is done between the involving banks.

Responsibilities:

- Used **Agile** practices and **Test-Driven** development techniques to provide reliable, working **microservices** early and often.
- **Solely** responsible for implementing **Open Source Technologies** such as Apache **Kafka** and **Redis** to overcome architectural challenges, resulting in a **150%** increase in NETC **system efficiency**.
- Transitioned NETC Backoffice system from **batch processing** to **real-time transaction settlement**, improving the speed and reliability of operations.
- Developed **REST API** endpoints in Java and writing SQL queries for Postgres databases.
- Developed comprehensive **transaction reports** to client banks, aiding in improved decision-making and operational a performance.
- Identified and resolved critical system bugs, **reducing downtime by 60%** and improving overall system stability.
- Improved the performance of backend systems by **optimizing database queries** and reducing response times by 50%.
- Involved in transforming Use cases into **Class, Sequence and State Diagrams**.
- Created **DAO** interface, abstract class and concrete classes to interact with persistence entities.
- Used J2EE design patterns like **Builder pattern, DAO, MVC, Observer pattern**.
- Used **Microservice** architecture with **Spring** based services interacting through REST API's.
- Used Spring **Kafka API** calls to process the messages smoothly on **Kafka Cluster** setup
- Designed and developed web pages with **MVC** pattern, using JavaScript.
- Extensively used Java 8 features such as **lambda** expressions, Parallel operations on collections.
- Used **Streams** and **Lambda** expressions available as part of Java 8 to store and process the data.
- Experience in **Maven build tool** and understanding the artifactory and repo structure.
- Used Junit with **Mockito, Log4j** for unit testing and as Java logging frameworks.
- Used **GIT** and **TortoiseSVN** for code repository and as version control mechanism.
- Built a new Onboarding dashboard (consolidated view to represent new joining team members) to Onboard different entities into the system.
- Worked on Role Based permissions (RBP) to create roles and permissions for various target population groups (mainly for Admins and Workers)
- Application developed utilizing **Eclipse IDE**
- Worked on **tool development** for Data Migration of Transactions from Legendary system(Oracle) to New System (Postgres).
- Expertise in creating and running integration jobs in **Jenkins**.
- Testing, creating and maintain data through API endpoints using **POSTMAN**.

- Performed **unit, regression and integration testing**, followed **Test driven development TDD**.
- Used **agile methodologies Scrum** for Software design and development. Involved in daily status meetings, acted as scrum lead and team code reviews .
- Resolve **Production customer support tickets** for Onboarding module and maintenance – issues related to configurations in HCM suite, module integrations, missing candidate data, smooth moving of candidate from one step to another step in Onboarding and Offboarding processes.
- Resolve **Production/ Oncall** support issues and handle tickets related to configuration, data migration issues and code fix issues.
- **Mentored** 2 junior developers on **best practices, code review, and technical design**.

Environment: Java 1.8/J2EE, Spring, Microservice, Javascript, Redis, Apache Kafka, Postgres, JSON, HTML, Jenkins, Junit, Log4j, GIT, Jenkins, POSTMAN, JIRA, Eclipse, CentOS

Employer: Cognizant Technology Solutions
Address: Bangalore, India

(Feb 2020 –Jun 2020)

Role: Programmer Analyst Trainee

Project name: Employee Onboarding

Brief description: This project is to build to Onboard newly recruited employees and handle all the Job application workflows.

Responsibilities:

- Learned and gained hands-on experience with Salesforce, Spring Boot, and React JS.
- Developed an Employee Onboarding project, streamlining processes and enhancing user experience.
- Collaborated with a team to implement key functionalities, integrating Salesforce with backend and frontend technologies.

Environment: Java 1.8/J2EE, Spring, React.js, HTML, CSS, GIT, Docker, Jenkins, POSTMAN, JIRA, Eclipse

PROJECTS

Project name: SnapBazaar

(Aug 2024 –Dec 2024)

Brief description: It is an E-Commerce Application built using Java, React.js, Spring Boot and RESTful API's on Amazon Web Service Cloud platform. It is an academic Project done by group of 2 people.

Responsibilities:

- Designed and developed an intuitive user interface adhering to **UI** and **UX** design principles.
- Implemented the design using frontend technologies such as **HTML, CSS, JavaScript, React JS**.
- Conducted user research and created **personas** to align the design with user needs and expectations.
- Used **Microservice** architecture with **Spring** based services interacting through REST API's.
- Created **AWS Lambda** functions for transaction processing.
- Designed and implemented a robust database schema using **Amazon RDS/MySQL** to handle product catalog, user data, and order management.

- Orchestrated container deployment using **Docker** and **Kubernetes**, achieving 99.9% uptime and supporting concurrent user sessions.
- Established an automated CI/CD pipeline with Jenkins, reducing deployment time by 70% and enabling rapid feature iterations.

Environment: Java 1.8/J2EE, AWS EC2, AWS S3, AWS RDS, AWS Lambda, Spring, React.js, HTML, CSS, GIT, Docker, Kubernetes, Jenkins, POSTMAN, JIRA, Eclipse

Project name: QuickFix

(Mar 2024 –Jul 2024)

Brief description: It is a Visual Studio Extension for Java Projects. It automates code review for java projects based on rules provided in an xml.

Responsibilities:

- Enhanced development efficiency by identifying code quality issues and adherence to coding standards automatically.
- Integrated the extension seamlessly with **Visual Studio's** IDE features, improving the user experience for Java developers.
- Ensured extensibility by allowing users to customize **code review rules** through XML configuration.
- Focused on **maintainability** and performance **optimization** during the extension's development.

Environment: Java 1.8/J2EE, TypeScript, Node Js, Visual Studio Code, Eclipse