

Sandeep Kumar Sutharapu

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Summary

- **5+ years** of experience as a Software Developer specializing in Backend development and Microservices.
- Proficient in working with diverse architectural styles including API-Led Connectivity, Microservices, Monolithic, Layered, N-tier Architectures and Event-Driven Systems.
- Designed and developed a series of REST APIs to build the core infrastructure of internal systems, ensuring seamless integration, scalability and maintainability.
- Handled complex business logic and real-time service streaming using gRPC and Java Reactive Programming.
- Extensive experience with integrations using Rest Template, JDBC, Hibernate, JPA, Mongo Template, Redis, Salesforce, FTP, SFTP, and SAP.
- Optimized large data processing through scheduler based & trigger-based batch processing, pagination, and streaming mechanisms.
- Implemented Spring Batch Processing and integrated it with Kafka for high-traffic services.
- Strong foundation in data structures such as Stacks, Priority Queues, Concurrent HashMap's, and Linked List's.
- Expertise in authentication and authorization mechanisms including JWT, OAuth2, SSO, and SAML, with role-based access control.
- Proficient in writing SQL queries and optimizing database performance for databases like Oracle, MySQL, MongoDB, and PostgreSQL.
- Unit tests using JUnit, MUnit, and JaCoCo, ensuring high code coverage and maintaining quality with SonarQube and JMeter for load testing, Postman & Swagger for API testing.
- Proficient in containerization using Docker and deploying applications on cloud platforms such as Render, AWS Lambda and AWS EC2.
- Experienced in CI/CD pipelines with Azure, Jenkins for seamless deployment and cloud integration.
- Strong issue resolution skills, including defect triaging and critical bug resolution under tight deadlines.
- Expert in MBR and MMR analysis, effectively translating project requirements into detailed JIRA descriptions.
- Comprehensive SDLC experience, from requirement analysis to testing and deployment.
- AI enthusiasts, working on developing intelligent API's integration LLM's and ML algorithms.

Key Domain and Technical Knowledge

- **Languages:** Java, Java Reactive Programming, SQL.
- **Frameworks & Technologies:** Spring Boot, Hibernate, gRPC, MuleSoft, Kafka, Firebase.
- **Databases:** Oracle DB, MySQL, MongoDB, PostgreSQL.
- **Cloud & DevOps:** AWS (EC2, Lambda, S3), Azure, Kubernetes, Redis, Docker, Jenkins.
- **MuleSoft Tools:** API Manager, Anypoint Design Center, Exchange, Studio, Runtime Manager, Security.
- **IDEs & Design Platforms:** Spring Tool Suite, Anypoint Platform, IntelliJ IDEA, Eclipse, Visual Studio
- **Build & Configuration Tools:** Gradle, Maven, YAML configuration, YAML property placeholder.
- **Version Control:** GIT, Bitbucket.
- **Project Management & Issue Tracking:** JIRA, Octane, Chalk, Confluence, Kanban, Trello.
- **Logging & Monitoring:** Splunk, Datadog, Kibana, Elastic Search, LOG4J2, Any Point Runtime.
- **Testing & Code Quality:** Postman, Swagger UI, SOAP UI, SonarQube, JMeter.
- **Encryption & Security:** Java - BCrypt, YAML, Secure Properties-config, ZUUL.

Experience:

Infosys Limited, USA

Jan 2024 - Present

Client: Charter Communications | **Position:** Software Developer III

In the Mobile Logistics Platform module, I contributed to projects such as FedEx REST Migration and Expedite Delivery. I extensively worked with Java Spring Boot to develop and maintain scalable microservices integrated with Oracle, MongoDB, Redis, and Kafka. I also facilitated seamless communication through third-party API integrations with FedEx, CTDI, and Amdocs to streamline order fulfillment, shipment tracking, and customer notifications.

Key Contributions:

- Led the migration from SOAP to REST, significantly improving shipment tracking efficiency by 80%.
- Performance increased by 60% through strategic implementation of parallel processing, asynchronous operations, and Java Streams, all managed with Java's robust concurrency features.
- Resolved an unidentified production bug within the first week of employment and resolved.
- Implemented JPA pagination to handle large datasets and reduce processing latency.
- Implemented the Kafka Publish-Consume model alongside Spring Batch for schedule-based batch processing.
- Utilized tools such as SQL Developer for Oracle and MongoDB Compass.
- Developed, enhanced, & refactored complex workflows to streamline processes and improve maintainability.
- Integrated error handling and logging services to maintain system reliability.
- Unit testing using JUnit and monitored code coverage via JaCoCo.
- Used tools like Splunk for monitoring, Postman and Swagger for API testing, and JMeter for load testing.
- Led daily defect triage sessions via JIRA, improving workflow management.
- Reviewed pull requests (PRs) and played a key role in migrating services to higher environments.
- Led offshore team sub-tasks and technical POC.

Capgemini Technology Services Limited

July 2021 to Aug 2022

Client: Becton Dickinson, Novelis Aditya Birla | **Position:** Senior Consultant

The project focused on quality analysis and data integration of metal alloys across systems, utilizing message queues (MQ) for data migration. I developed custom Java solutions and implemented a framework for Mule APIs and Java microservices to ensure seamless integration between diverse technologies.

Key Contributions:

- Collaborated with clients, architects, and project managers to gather and define project requirements, ensuring alignment with business goals and technical feasibility.
 - Designed and developed API architecture, integrating technologies such as IBM MQ, SAP, Oracle DB, file systems, and RESTful services to facilitate data exchange between systems.
 - Implemented load balancing and multithreading to improve performance by 40%.
 - Implemented centralized error handling and logging strategies, ensuring consistent and efficient logging with Log4j2 and Elasticsearch (ELK). Added SMTP email notifications for enhanced system monitoring and alerting.
 - Utilized ZUUL for secure gateway configuration and MFT for enhanced file transfer management.
 - Secured application properties with YAML property placeholders using encryption/decryption for enhanced security and configuration management.
 - Unit testing using MUnit and ensured high code quality with continuous integration tools such as SonarQube.
 - Integrated CI/CD pipelines with Azure DevOps.
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Infosys Technologies Private Limited**Feb 2019 - June 2021****Client:** Johnson Controls Inc | **Position:** Senior systems Engineer

In this project, I was responsible for developing MuleSoft interfaces to enable seamless interoperability between various data storage systems and customer service applications. I spearheaded the migration of a Java-based application to a MuleSoft-backed architecture and implemented internal frameworks for API development.

Key Contributions:

- Maintained API architecture using the API-led connectivity approach, structuring layers into System, Process, and Experience APIs, facilitating the seamless integration of SAP, Salesforce, and Oracle databases.
 - Developed independent and scheduler-based APIs, triggered by a common scheduling mechanism to automate tasks, improving efficiency in process automation.
 - Designed and implemented data flow structures to migrate data between REST, SOAP, SAP, Salesforce, Oracle, and other microservices, enabling smooth data exchange and process automation.
 - Handled complex data transformations involving JSON, XML, CSV, Java, and BASE64, ensuring accurate and efficient data conversion between systems.
 - Deployed a Global Error Handler for advanced fault detection, error recovery, and prevention, improving system reliability and minimizing downtime.
 - Optimized database interactions by writing efficient SQL queries and improving Oracle DB performance.
 - Implemented CI/CD pipelines using Azure DevOps for building and release automation, ensuring smooth deployments across environments.
 - Integrated Splunk for log monitoring and utilized YAML for secure configuration management.
 - Managed codebase migrations, leveraging JIRA for task management and GitHub for version control and issue tracking.
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Operation Food Search**Sep 2023 – Dec 2023****Team Lead Software Developer**

As the Team Lead Software Developer, I spearheaded the design, development, and successful delivery of a software solution, overseeing a team of developers while ensuring high-quality architecture and optimal performance. This is a stipend-based project, where I worked with my clients directly to take project requirements and deliver working software. Resulting in a budget reduction from \$4000/year to \$90/month

Key Contributions:

- Led the design and delivery of a secure backend solution, implementing role-based access control and secure login systems using BCrypt. Platform independent Android, IOS functional mobile application.
 - The core business logic & functionalities were developed server-side using Java with Spring Boot, MySQL DB.
 - The UI side of the application was developed using Flute Flow and leveraged Fire Base.
 - Deployed the application using Docker Image and hosted it provider Render.
 - Worked closely with both the development team and management, ensuring smooth communication and alignment on project goals and milestones.
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Bank of Montreal**June 2023 – Aug 2023****Software Developer Intern**

As a Software Developer Intern, I worked closely with senior developers and cross-functional teams to deliver scalable and efficient solutions for client report generation services. My role involved leveraging advanced technologies such as gRPC and Java Reactive Programming to optimize performance.

Key Contributions:

- Collaborated with business analysts to understand and translate business requirements into technical solutions, ensuring alignment with client expectations and project goals.
 - Developed a service streaming solution to integrate client report generation using gRPC (Google Remote Procedure Calls), enabling real-time data streaming and communication over a single TCP connection.
 - Built a scheduling service that triggers automated data retrieval processes from AWS Aurora Database using a DB adapter, optimizing data flow and report generation.
 - I gained hands-on experience with PostgreSQL, gRPC, HTTP/2, and Java Reactive Programming, deepening my knowledge of modern technologies and software architecture.
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Achievements:

- Received appreciation from Client Manager for contributions to FedEx REST migration project.
- Received insta award for exceptional performance.
- Xtra-Mile Award Winner, Recognized for exceptional contributions to project success for leadership for outstanding performance.

Certifications / Professional Awards:

- Spring REST Certified, Spring ORM Certified, Spring Batch Certified
- MuleSoft Certified Associate, MuleSoft Certified Developer (MCD L-1)
- Agile Certified Developer, SonarQube Certified, JMeter Certified

Education:

Master of Science in Software Engineering from **Saint Louis University**

3.95/4 GPA

Saint Louis City, Missouri, USA, (2022-2024)

- I specialize in designing, implementing, evaluating, and testing high quality large scale and complex software systems.

Academic Projects:

Semester-1 | **Indian Ludo:** https://github.com/Sandeep-1-Kumar/IndianLudo_AstaChamma

- Developed an extendable Indian Ludo game in Java using OOP principles (MVC, Strategy, Observer) with Java Swing for UI, state-saving via serialization, and high-score tracking.

Semester-2 | **Polyglot:** <https://github.com/Sandeep-1-Kumar/Polyglot>

- Developed a responsive full-stack web application for language learning using Java Spring Boot (backend) and React.js (frontend). Implemented a Swahili verb translation algorithm with HashMap for efficient mapping, optimized MySQL database, and orchestrated services using Docker Compose.

Semester-3 | **Indian Flavor Scape:** <https://github.com/Sandeep-1-Kumar/Indian-Flavor-Scape>

- Developed a scalable full-stack restaurant ordering application using Java Spring Boot (backend) and React.js (frontend). Implemented RESTful APIs, CI/CD in GitLab, robust error handling, and seamless user interactions for customers and staff.

Semester-4 | **Software Architecture:** <https://github.com/Sandeep-1-Kumar/Flight-Data-Acquisition-unit>

- Authored a paper analyzing Netflix's software architecture, focusing on key quality attributes and how the architecture addresses them effectively.