**Sairam Bodapothula**

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**SUMMARY**

Passionate Software Development Engineer with around 5 years of hands-on experience building scalable, high-performance applications using Java, Python, and modern frameworks like Spring Boot and React.js. Expertise in algorithm design, data structures, distributed systems, and microservices architecture, with a proven track record of optimizing code for efficiency (e.g., reducing response times by 20%) and delivering innovative, customer-centric solutions. Skilled in full-stack development, API design, and test-driven development (TDD) in Agile environments. Eager to tackle complex problems, drive innovation, and contribute to high-impact teams at companies like Amazon, where I can apply my strong foundation in computer science to create reliable, performant software.

**SKILLS**

**Programming Languages**: Java, Python, JavaScript, TypeScript, SQL, C/C++

**Frameworks & Libraries**: Spring Boot, Hibernate, React.js, Spring MVC, JUnit, TestNG, Apache Spark, Hadoop MapReduce

**Databases**: PostgreSQL, MongoDB, MySQL, Oracle

**Web & APIs**: RESTful APIs, GraphQL, SOAP, Kafka

**Tools & Methodologies**: IntelliJ IDEA, Eclipse, Postman, Swagger, Jira, Bitbucket, Git, Agile (Scrum, Kanban), CI/CD, Test-Driven Development (TDD)

**Core Competencies**: Algorithm Design & Optimization, Data Structures (e.g., Hash Tables, Trees), Distributed Systems, Microservices, Complexity Analysis, Code Reviews, Debugging, Innovation in Problem-Solving, Cross-Functional Collaboration

**WORK EXPERIENCE**

**Software Engineer** | Broadridge, Kansas, USA | Jan 2024 – June 2025

* Designed and implemented scalable microservices using Java and Spring Boot for fintech analytics platforms, optimizing algorithms and data structures (e.g., hash tables) to reduce transaction processing response times by 15% in high-volume systems.
* Developed real-time data processing pipelines in Python and Java, enhancing system accuracy and efficiency while applying optimization techniques to handle ambiguity in requirements and deliver innovative solutions.
* Built responsive user interfaces with React.js for financial dashboards, improving user experience and reducing load times by 20% through efficient frontend-backend integration.
* Authored comprehensive requirements, design, and integration test plans, achieving 90% code coverage with JUnit and TDD, ensuring robust reliability and operational safety.
* Collaborated in Agile sprints, conducting code reviews and stand-ups to foster cross-functional alignment, drive developer productivity, and resolve performance bottlenecks with creative problem-solving.
* Performed complexity analysis on system designs to optimize for scalability, contributing to innovative fintech features that aligned with customer-centric goals and business objectives.

**Java Developer** | J. E. Dunn Construction Group, Kansas City, MO, USA | Dec 2022 – Jan 2024

* Engineered Java-based microservices with Spring Boot for project analytics systems, designing efficient data structures (e.g., trees) to improve overall system performance by 20% and reduce data processing times.
* Optimized backend logic and algorithms for high-volume analytics, cutting data retrieval times by 20% using Hibernate and MySQL, while driving innovation through iterative code enhancements.
* Implemented RESTful APIs and integrated with external systems, ensuring seamless data exchange and enhancing system scalability.
* Conducted thorough unit testing with JUnit 5, achieving 85% code coverage via TDD, and debugged complex issues to maintain high reliability and uptime.
* Contributed to Agile sprint planning and requirement definition in Jira, collaborating with cross-functional teams to deliver features on time and provide clear technical documentation in Confluence.
* Provided feedback on system designs during code reviews, handling ambiguity in project specs to optimize for performance and foster team productivity.

**Full Stack Developer** | CGI, Chennai, India | Jun 2021 – Jul 2022

* Developed Java microservices with Spring Boot for financial analytics, improving scalability by 20% through optimized algorithm design and distributed systems principles.
* Created RESTful APIs integrated with Kafka for real-time data processing, boosting throughput by 15% in high-volume fintech environments.
* Optimized database interactions with Hibernate and Oracle 19c, reducing query execution times via efficient indexing and data structure choices.
* Automated testing workflows with JUnit 4, achieving 80% code coverage and enhancing code quality through TDD practices.
* Collaborated with cross-functional teams in Agile sprints, documenting designs in Confluence and tracking issues in Jira to ensure timely, client-aligned feature delivery.
* Troubleshot and resolved application bottlenecks, applying creative problem-solving to improve system reliability and support innovative banking solutions.

**Java Developer - Intern** | Granules India, Hyderabad, India | May 2019 – May 2021

* Built data access layers using Java and Hibernate 5.4, improving database interactions by 20% for pharmaceutical systems through optimized ORM mappings and data structures.
* Developed RESTful APIs with Spring MVC for integration with external vendors, enhancing data exchange efficiency in supply chain operations.
* Automated batch processing workflows with Spring Batch, streamlining operations and improving efficiency by 25%.
* Conducted unit and integration testing with JUnit 4 and TestNG, achieving 80% code coverage to ensure robust functionality and compliance.
* Documented API specifications using Swagger, facilitating seamless collaboration and clear communication with stakeholders.
* Contributed to Agile sprints, delivering compliant features while troubleshooting defects to maintain high system reliability and drive innovation in pharmaceutical platform

**EDUCATION**

Missouri University of Science and Technology, Master of Science, Computer Science, Rolla, MO | Aug 2022 - May 2024

Relevant Coursework:

* Analysis of Algorithms (advanced algorithm design and complexity analysis)
* Database Systems (database optimization and query processing)
* Security Operations & Management (secure software development)
* Cloud and Big Data Management (distributed systems and scalability)
* Project Management (Agile methodologies and team coordination)
* Business Analytics & Data Science (data-driven decision-making)

**Projects**

**Mutual Friends Analysis in Social Networks:** Developed distributed algorithms in Apache Spark and Scala to compute and analyse mutual friends in a social graph (LiveJournal dataset), implementing variations for basic computation, maximum/average counts, and filtered results while optimizing data structures (e.g., lists, sets) for efficient parallel processing with RDDs, runtime measurement, and HDFS output; aligned with Analysis of Algorithms and Distributed Systems coursework.

**Hadoop MapReduce for Mutual Friends:** Built a MapReduce job in Java to compute mutual friends from social data, using custom mappers/reducers with LinkedHashSets for intersections, handling edge cases, and extending for max/average calculations and filters while ensuring scalability and performance metrics; reflected expertise in distributed systems from Cloud and Big Data Management coursework.

**Book Reviews Analytics with MongoDB:** Imported and analysed a large JSON dataset (~8.9M book reviews) in MongoDB using aggregation pipelines and queries (e.g., OR/AND, grouping, regex, sorting) for ratings, reviewers, and patterns, optimizing for efficiency like collation and existence checks; showcased database skills from Database Systems coursework.

**Real-Time Supply Chain Integrator:** Developed a distributed system in Java, Kafka, and MongoDB for low-latency real-time data synchronization, applying TDD and complexity analysis for fault-tolerant design; based on Cloud and Big Data Management principles.