

Sai Nagesh Gowra Balaji

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Backend Software Engineer | 4+ Years of Experience | Java, Spring Boot, Kafka, Distributed SQL, AI Agents

SKILLS

Languages	Java, Python, SQL, PL/SQL, JavaScript
Backend	Spring Boot, Spring Security, Microservices, REST APIs, GraphQL, Django, FastAPI, Node.js, React
Data & Messaging	Apache Kafka, CockroachDB, Cassandra, PostgreSQL, Oracle, SQL Server, MongoDB, Apache Spark
Cloud & DevOps	Kubernetes, AWS, Docker, Jenkins, Git, Bitbucket, CI/CD, Grafana, ServiceNow
Testing & Quality	JUnit, Mockito, Component & E2E Testing, Performance Testing, Cucumber, Selenium, SonarQube, Snyk
AI Engineering	Agentic AI, Tool Calling, MCP, RAG, Vector Databases, Prompt Engineering, Claude API
Security	OAuth 2.0, JWT, SSO (ADFS), Role-Based Access Control

WORK EXPERIENCE

JPMorgan Chase & Co. (via Virtusa Corporation)

Jersey City, NJ

Software Engineer, Consumer & Community Banking – Global Customer Platform

October 2025 – Present

- Built a skills-based **AI agent** that onboards client teams to the **audit-history framework** by collecting necessary inputs for database, service-account, and **resource URI** properties for **6 environments**, then scaffolding a **Spring Boot** provider app with **audit APIs**, validating it with **Python** scripts, and raising the **pull request**.
- Designed a **typedaudits API** that serves the planned **GraphQL** audit-history gateway with typed, drift-tolerant data.
- Performance-tested audit-history APIs at **5B rows** and cut paginated response time from **~22s at 10M rows to 350 ms at 500M rows (~1.2s at 5B)** with a targeted **index**, coordinating cluster capacity and replication with DB platform teams.
- Enhanced a pluggable, **Kafka-triggered bulk file-ingestion framework** loading **S3** files with record-level status and a **transactional outbox**, with **ShedLock**-coordinated parallelism, **Liquibase** provisioning, and **YAML**-tunable concurrency.
- Tuned ingestion to load **10M records into 5 CockroachDB tables in under 1 hour** with **16-bucket hash sharding**.
- Implemented end-to-end **component tests** for the preprocessor and transformer stages of a large **file pipeline** that partitions very large upstream files from S3, transforms them, and publishes events to downstream processors.
- Ran spikes across applications on **data sync and reconciliation** from legacy to target-state cloud platforms.
- Upgraded **nearly 20 microservices** to newer **Photon** framework releases, resolving **Jenkins** build failures.
- Raised test coverage above **80%** to pass **SonarQube** quality gates, remediated **Snyk**-reported vulnerabilities, and supported releases through **ServiceNow** change requests and deployment validation on **Kubernetes**.

Marlabs

Harrison, NJ

Full Stack Developer Intern

February 2025 – September 2025

- Developed **Spring Boot REST** microservices in Marlabs' enablement program with layered design and error handling.
- Secured APIs with **Spring Security (OAuth 2.0/JWT)** and wrote **JUnit** and **Mockito** tests, with Git-based code reviews.

GJ Systems

Chittoor, India

Software Developer

June 2021 – August 2023

- Designed, built, and deployed a **Django ERP** for a gold, silver, and diamond jewellery retailer, covering **GST billing** with PDF invoices, inventory, purchasing, and customer management, and cut manual reporting effort by **90%**.
- Engineered the ERP's **pricing and inventory core**, calculating every bill from daily metal rates and keeping weight-based stock and transaction history in sync with each sale, purchase, and exchange.
- Developed and deployed **gurudattajewellers.com (React, Node.js, Express, MongoDB)**, a live gold and silver rate tracker with US and India market timings, automated rate collection, and historical trend charts for **500+ daily users**.

BNY Mellon Technology

Chennai, India

Associate Software Engineer, Pershing

January 2020 – May 2021

- Led full-SDLC development of **QED**, a **Spring Boot** and **REST** quality-engineering dashboard platform, automating QA workflows and improving defect-tracking efficiency by **70%**.
- Built **22+** interactive QED dashboards (**JSP, jQuery, Bootstrap, Chart.js**) with **role-based access control**, giving teams real-time visibility into quality and defect metrics.
- Wrote **Oracle** and **SQL Server** queries and **stored procedures** that aggregate quality and defect metrics from multiple **JIRA** databases and daily team updates into dashboards for **15+ teams**.
- Automated audit-ready **Excel** reporting with **Apache POI**, cutting manual effort by **90%**, and built **Spring Boot** and **FreeMarker** email alerts that improved defect response time by **75%**.
- Managed regression cycles in an Agile team and led knowledge transfer for **5+ QA engineers** moving to automated testing.
- Built a **Java/TestNG** automation framework with **500+ BDD scenarios (Selenium, Cucumber)** reaching **95% test coverage** for the **NetX360** platform, plus a BDD script generator and a **React/Node.js** test-orchestration dashboard.

EDUCATION

New Jersey Institute of Technology (NJIT), Newark, NJ

September 2023 – December 2024

Master of Science (MS), Computer Science

GPA 3.85 / 4.00