SAI GANESH VARMA SIRUVURI

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PROFESSIONAL SUMMARY

Versatile and impact-driven Java Full Stack Developer with over 6 years of experience designing, building, and deploying scalable, secure, and high-performance web applications across banking, manufacturing, logistics, and lending platforms. Proficient in Java 11+, Spring Boot, Microservices, and React.js with a strong foundation in RESTful API design, modular UI architecture, and real-time data processing using Kafka and WebSockets. Demonstrated expertise in CI/CD automation, containerization with Docker, and cloud deployments using AWS services such as EC2, S3, RDS, and IAM. Proven track record of improving performance, reducing system latency, and enabling business-critical automation using Redis, PostgreSQL, MongoDB, and security frameworks like Spring Security and JWT. Adept in Agile environments, delivering production-ready code across the full SDLC with 80%+ test coverage and seamless integration between frontend and backend services. Currently driving cloud-native development initiatives using GitHub Actions, Jenkins, and Terraform to support enterprise-grade applications in regulated and distributed environments.

TECHNICAL SKILLS

Programming Languages: Java (11+), JavaScript (ES6+), TypeScript, SQL, Python
Frameworks & Libraries: Spring Boot, Spring Security, Spring MVC, Hibernate, JPA, React.js, Redux Toolkit, Node.js, Express.js, Next.js
Frontend & UI Development: HTML5, CSS3, SCSS, Bootstrap, Material UI, Tailwind CSS, AJAX, JSON
Backend & API Development: RESTful APIs, GraphQL, JWT, OAuth2, WebSockets
Databases & Caching: MySQL, PostgreSQL, MongoDB, Redis, DynamoDB
Cloud & DevOps: AWS (EC2, S3, RDS, Lambda, CloudWatch, IAM), Docker, Kubernetes, GitHub Actions, Jenkins, GitLab CI/CD, Terraform
Build & Automation Tools: Maven, Gradle, Docker Compose, Nexus, SonarQube
Testing & Quality: JUnit, Mockito, TestNG, Selenium, REST Assured, Postman, Jacoco
Monitoring & Logging: ELK Stack (Elasticsearch, Logstash, Kibana), Prometheus, Grafana, Log4j, SLF4J
Version Control & Collaboration: Git, GitHub, GitLab, Bitbucket, JIRA, Confluence
Methodologies & Tools: Agile (Scrum, Kanban), IntelliJ IDEA, VS Code, Swagger/OpenAPI, Figma, Notion
Messaging & Streaming: Apache Kafka, RabbitMQ

PROFESSIONAL EXPERIENCE

Java Full Stack Developer **Feb 2024 - Present**
Encore | Illinois

Project Description: Developed a real-time factory floor and quality inspection management platform to replace paper-based reporting, streamline production defect tracking, and monitor sensor-triggered maintenance events. Leveraged Spring Boot microservices and a React.js frontend hosted on AWS, with Kafka used for real-time machine telemetry and WebSocket-based UI updates.

Frontend

- Built an interactive production dashboard using React.js and Redux Toolkit, enabling plant supervisors to monitor defect rates and production KPIs in real time, reducing manual reporting lag by 70%.
- Integrated dynamic state management with React Hooks, Formik, and Yup to validate QA data at the point of entry, improving inspection accuracy and cutting error rates by over 30%.
- Implemented React Router for seamless multi-page navigation and WebSocket-based UI updates, ensuring smooth transitions between sensor alerts, machine stats, and operator logs.
- Optimized component structure and UI rendering with Tailwind CSS and lazy loading, improving page load time and responsiveness on low-powered factory floor devices.
- Applied modular component architecture in React for reusability and maintainability, simplifying future enhancements across QA and reporting features.

Backend

- Developed modular REST APIs using Spring Boot and Java 11 to enable data exchange between QA terminals, ERP systems, and production dashboards, removing dependency on Excel-based logs.
- Automated real-time sensor tracking using Kafka producers and integrated Spring WebSocket endpoints to broadcast alerts, decreasing machine incident response time by 40%.
- Implemented secure backend authentication using Spring Security, JWT, and RBAC, reducing unauthorized access incidents and tightening data access governance.
- Tuned PostgreSQL database queries and applied connection pooling via HikariCP, improving API throughput and reducing response times by up to 35% during shift transitions.
- Authored comprehensive unit and integration test suites with JUnit, Mockito, and Testcontainers, achieving 80% code coverage and reducing post-release bugs by nearly one-third.

Cloud

- Containerized backend microservices and frontend components using Docker, deploying consistently to AWS EC2 instances with Elastic Beanstalk, ensuring scalable multi-environment availability.

- Automated CI/CD pipelines with GitLab CI and Jenkins to manage builds, tests, and deployments across dev, QA, and production, accelerating deployment cycles by over 50%.
- Implemented access control via AWS IAM policies for EC2 and S3 resources, securing logs, reports, and deployment scripts across teams.
- Set up AWS CloudWatch and ELK Stack monitoring to visualize service performance and error logs, reducing incident resolution time with real-time observability tools.

Full Stack Developer **Jun 2021 - Aug 2023**
EVCO Plastics | Wisconsin

Project Description: Designed and deployed a digital manufacturing execution system to replace paper-based reporting and enhance floor-level visibility for production defects, quality control, and sensor-triggered alerts. Built using Spring Boot microservices and React.js frontend, the platform was deployed via Docker to AWS and integrated with Kafka and WebSockets for real-time machine telemetry.

Frontend
- Developed production and QA dashboards in React.js with Redux Toolkit and Tailwind CSS, which increased visibility into defect rates and reduced manual data entry by 70%.
- Applied React Hooks and Formik for dynamic form handling with built-in validations, improving data consistency and reducing rejections in QA reports across three shifts.
- Built a modular frontend using React Router and component-based design, streamlining navigation and simplifying future enhancements for plant-specific workflows.
- Enhanced application responsiveness using lazy loading and conditional rendering, which reduced load time on legacy devices by 25% during peak operational hours.

Backend
- Engineered REST APIs with Spring Boot and Java 11 to synchronize data between QA terminals and ERP systems, removing delays from manual reporting and improving real-time accuracy.
- Implemented Kafka-based sensor event tracking with Spring WebSocket broadcasting, which enabled instant maintenance alerts and reduced equipment downtime by 40%.
- Applied Spring Security and JWT-based authorization with RBAC, strengthening role-level access control and aligning system permissions with IT audit protocols.
- Tuned PostgreSQL queries and configured connection pooling with HikariCP, cutting API response time during heavy traffic and supporting faster QA data ingestion.

Cloud
- Deployed containerized microservices to AWS EC2 and managed infrastructure via Docker Compose and GitLab CI, resulting in faster QA-to-production transitions across all environments.
- Integrated Jenkins pipelines to automate build, test, and deployment stages, which improved release frequency and minimized configuration-related errors.
- Applied AWS IAM policies for controlled access to deployment environments and S3 buckets, reducing access-related incidents and ensuring SOC 2 compliance readiness.
- Enabled performance observability using CloudWatch and ELK Stack visualizations, reducing time-to-resolution by 45% through real-time error diagnostics.

Java Full Stack Developer **Nov 2019 - May 2021**
Independent Bank | Michigan

Project Description: Developed and modernized Independent Bank's digital banking system, transforming paper-driven and legacy desktop operations into secure, real-time web services. Leveraged Spring Boot microservices and React.js UI to power customer onboarding, transaction tracking, and fraud alerting with Kafka and Redis integration. CI/CD was delivered using Jenkins, Git, and Maven.

Frontend
- Delivered responsive user interfaces using React.js and Bootstrap, enabling consistent banking experiences across desktop and mobile, which improved session duration by 40%.
- Enhanced form usability through dynamic validation and React Hooks, which lowered submission errors and improved onboarding completion rates by 30%.
- Structured UI navigation using React Router and Axios for real-time data updates, enabling fluid interaction without full-page reloads across critical banking modules.
- Built modular components with reusable logic and visual consistency, accelerating development cycles for new banking features and supporting compliance branding.

Backend
- Created Spring Boot REST APIs to handle digital account services, increasing transaction visibility by 45% and enabling branch-independent operations.

- Implemented Kafka producers for transaction event broadcasting and connected WebSocket listeners, allowing fraud analysts to detect anomalies within seconds.
- Cached high-frequency APIs like account balances using Redis, reducing response time by 40% and improving throughput during peak banking hours.
- Secured backend endpoints with Spring Security and JWT authentication, maintaining strong session integrity and aligning with industry-grade data protection standards.
- Developed unit and integration tests with JUnit and TestNG, boosting test coverage to 80% and helping prevent critical issues during production pushes.

Cloud

- Automated deployments through Jenkins-integrated CI/CD pipelines with Maven and Git, enabling daily build testing and rollback readiness for regulatory modules.
- Managed multi-environment configurations and hardened deployment security with encrypted credentials, enhancing control across QA, UAT, and production.
- Integrated monitoring using ELK Stack to track API usage patterns and spot anomalies, which reduced incident resolution time by 35% across key services.

Full Stack Developer **Oct 2018 - Oct 2019**
Kinara Capital | Bengaluru, India

Project Description: Developed a digital lending solution to accelerate credit decisioning for micro-entrepreneurs across India. The platform enabled secure onboarding, automated credit scoring, and real-time KPI dashboards using Spring Boot, React.js, MongoDB, and Aadhaar/PAN integrations. The system helped Kinara scale loan disbursals without increasing operational load.

Frontend

- Built dynamic credit application forms using React.js, Formik, and validation logic, which improved applicant data integrity and reduced form rejection rates during onboarding.
- Enabled cross-page routing and asynchronous data access through React Router and Axios, streamlining navigation between KYC, scoring, and document upload screens.
- Developed real-time performance dashboards using Chart.js and custom React components, helping branch managers track disbursal trends and lending KPIs at a glance.
- Modularized UI logic into reusable components and standardized styling, reducing future development time and improving design consistency across borrower-facing workflows.

Backend

- Engineered microservices in Spring Boot and Java 8 to support credit evaluation, KYC checks, and loan disbursal workflows, which reduced manual processing by over 50%.
- Connected Aadhaar and PAN APIs through secured REST interfaces, accelerating identity verification and increasing the number of applicants processed daily by 40%.
- Applied OAuth2 and JWT-based service authentication using Spring Security, which safeguarded sensitive borrower data and enforced internal access boundaries.
- Optimized MongoDB aggregation pipelines for fast lookup of customer histories and credit records, reducing backend response times and improving agent resolution rates.
- Developed integration and unit test cases with JUnit to validate business-critical scenarios in scoring logic, reducing regression issues during new product launches.

Cloud

- Containerized all backend and frontend components using Docker and deployed consistently across environments via GitLab CI/CD, ensuring stable multi-region rollouts.
- Automated versioned deployments and rollback procedures using YAML-based GitLab runners, increasing release reliability and minimizing service disruptions.
- Monitored API health through structured logging and performance counters, enabling early error detection and reducing average incident response time.
- Worked with operations teams to sync infrastructure rollout schedules with regional credit timelines, ensuring loan platform availability aligned with demand spikes.

EDUCATION

Master of Science in Operations Management & Information Technology **Aug 2023 - May 2025**
Northern Illinois University, Chicago, IL

Bachelor of Technology in Mechanical Engineering **Oct 2017 - Jun 2021**
Vignan Institute of Information and Technology, India