

SOUMYA RANJAN SWAIN

Software Development Engineer | Full-Stack Java Developer

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SUMMARY

Software Development Engineer with 3+ years of experience building and deploying production-grade applications using **Java, Spring Boot, PostgreSQL, React, Angular, REST APIs, Docker and CI/CD**. Experienced in backend architecture, database design, API development, application security, cloud deployment and production support across government, healthcare and enterprise domains. Contributed to end-to-end development of large-scale platforms, including an award-winning government enforcement system and a multi-role healthcare platform integrating AI/ML capabilities. Strong experience collaborating across teams, owning backend and database components, troubleshooting production issues and delivering applications from design through deployment.

CORE SKILLS

Languages: Java, JavaScript, SQL

Frameworks: Spring Boot, J2EE, JPA/Hibernate, Struts, Swagger API

Frontend: React, Angular, HTML5, CSS3

Databases: MySQL, Oracle, PostgreSQL

Cloud & DevOps: AWS (EC2, RDS, Elastic Beanstalk), Docker, CI/CD Pipelines, GitHub

ML / Emerging Tech: ONNX Runtime, PyTorch (model integration), OCR, Prompt Engineering

Other: Kafka, JWT & Spring Security, SMTP Integration, Razorpay Payment Gateway

EXPERIENCE

Software Development Engineer | NIC Project — Akiko Sherman Infotech Pvt. Ltd.

Bhubaneswar, Odisha | Nov 2024 – Present

- Develop and maintain production-grade Java/Spring Boot backend services and frontend modules for government applications, contributing across design, development, testing, deployment and production support.
- Design and implement REST APIs, database operations, business workflows and application integrations using Spring Boot, JPA/Hibernate and PostgreSQL.
- Diagnose and resolve application defects, configuration issues and performance bottlenecks across development, staging and production environments.
- Analyze recurring production issues and implement long-term fixes to improve application stability and reduce repeat incidents.
- Configure, deploy and maintain applications across multiple environments while coordinating with testing, infrastructure and client teams for release readiness.
- Contribute to database design, query optimization, API validation, security implementation and dashboard/UI development.

Java Developer Intern | CodeClause

Pune, Maharashtra (WFH) | Sep 2023 – Oct 2023

- Developed Java-based applications using Java, HTML, CSS, JavaScript, Gradle and MySQL, applying object-oriented programming and backend development principles.
- Built mini projects including a URL Shortener and Job Posting Platform, implementing REST APIs and documenting API contracts using Swagger UI.
- Designed and iterated application architecture while implementing core business logic and database operations.

Java Developer Intern | Interface Software

Bhubaneswar, Odisha | Jun 2023 – Aug 2023

- Developed backend modules using Java, Spring Boot, Hibernate, MySQL and Oracle across production-oriented applications.
- Implemented and debugged application features with JUnit and Maven, with additional exposure to Struts-based applications.
- Integrated JWT-based authentication and SMTP notification workflows into application modules.
- Deployed applications on AWS EC2, using RDS and Elastic Beanstalk for application and database hosting.

Assistant Production Engineer | Lumax Autotechnologies Pvt. Ltd.

Kolar, Karnataka | Apr 2020 – Nov 2021

- Managed production and inventory data using Oracle DB while supporting manufacturing process operations.
- Trained new team members on production tools and standard operating procedures.

KEY PROJECTS

eDetection — Intelligent Digital Enforcement Platform

Technologies: Java, Spring Boot, Angular, PostgreSQL, REST APIs, Database Optimization, DR

- Contributed to the development and production deployment of an automated digital enforcement platform implemented across 11 states, supporting automated violation detection, monitoring and enforcement workflows.
- Optimized database query methods, backend processing and internal server-side validation to handle large-volume data processing, reducing end-to-end processing time to approximately 30% of the previous runtime.
- Designed and optimized backend APIs, business workflows and PostgreSQL database operations for high-volume enforcement data and real-time monitoring.
- Implemented and supported Disaster Recovery (DR) architecture and deployment workflows to improve application availability and operational resilience.
- Developed and enhanced monitoring dashboards, API validations and application workflows while troubleshooting production issues across multiple environments.
- Worked on integrations with vehicle, toll and other government systems supporting automated detection and enforcement operations.
- Contributed to production support, performance optimization, deployment and release activities for a multi-state government platform.

MediAI — Healthcare Management Platform

Technologies: Java, Spring Boot, React, PostgreSQL, Docker, CI/CD, AI/ML Integration

- Conceptualized and planned the MediAI platform, defining the overall product structure, user roles, major healthcare workflows and technical approach before leading its implementation with a 5-member development team.
- Designed a multi-role healthcare ecosystem supporting 7+ stakeholder/user categories, including patients, doctors, nurses, caretakers, hospitals, laboratories and nursing homes.
- Owned the Spring Boot backend architecture and PostgreSQL database design, developing REST APIs, business logic, data models and core workflows for appointments, diagnostic tests, consultations and healthcare services.
- Contributed to React frontend development and coordinated API contracts and feature integration across backend, frontend and AI/ML components.
- Containerized application components using Docker and contributed to CI/CD-based deployment pipelines for automated build and deployment.
- Planned and integrated 3+ AI-assisted healthcare capabilities, including an AI assistant for preliminary health assessment, e-prescription generation/analysis and AI-powered healthcare assistance.
- Collaborated with team members responsible for AI/ML model development and training, integrating their capabilities into the application while owning the backend, database and application integration layers.
- Translated the initial product concept into an end-to-end healthcare platform by coordinating backend, database, frontend, deployment and AI/ML integration across the 5-member team.

INDOCS — AI Document Validation & Verification System

Technologies: JavaScript, ONNX Runtime, PyTorch, OCR, RegEx

- Developed the client-side architecture for an AI-assisted document validation and verification system designed to reduce manual document review
- Integrated PyTorch models converted to ONNX for browser-based inference and document-processing workflows.
- Integrated OCR and RegEx-based validation for standardized text, field and value extraction.
- Worked on the application architecture connecting document processing, model inference and rule-based verification workflows.

EV Subsidy Portal — Government EV Subsidy Management Platform

Technologies: Java, Spring Boot, Angular, PostgreSQL, REST APIs, Application Security

- Developed and supported the full-stack EV subsidy platform, enabling citizens to submit, track and manage subsidy applications through a self-service web interface.

- Designed and implemented Spring Boot REST APIs, business workflows and PostgreSQL database operations for application submission, verification, approval and status tracking.
- Handled application security audit remediation, identifying and patching multiple security vulnerabilities and strengthening inherent security controls across the web application.
- Implemented and strengthened security mechanisms covering authentication, authorization, input validation, secure API handling and application-level security controls.
- Optimized PostgreSQL queries and database operations to improve application response time and reliability.
- Supported integration of financial processing and subsidy disbursement workflows while maintaining government application and data-security requirements.

Blogging Application

Technologies: *Java, Spring Boot, React, PostgreSQL, Spring Security, JWT, AWS*

- Developed a full-stack blogging platform supporting posts, comments, user interactions and content management.
- Implemented Spring Security and JWT-based authentication and authorization for secure application access.
- Developed and documented REST APIs using Swagger UI and integrated database-backed application workflows.
- Deployed application components using AWS EC2, RDS and Elastic Beanstalk.

AWARDS & RECOGNITION

- Technology Sabha Award (2026) — for the eDetection application.
- Economic Times Award, Silver Category (2026) — for the eDetection application.

EDUCATION

Satyasai Engineering College — B.Tech, Computer Science

Dec 2021 – May 2024

CGPA: 8.2

CIPET-CSTS — Diploma, Plastic Engineering

Mar 2018 – Apr 2020

CGPA: 9.4