Sahil Nag

sahil.nag3@gmail.com | www.linkedin.com/in/snag08 | M.No: +91 9617265356

Education

Indian Institute of Technology (BHU), Varanasi — Varanasi, UP
Bachelor of Technology (B.Tech) — *Jul. 2019 – Jun 2023*

Experience

Bhutani Infra — Noida, UP
Software Engineer II — *Apr. 2025 – Present*

- Secured user data for **1,000+ active profiles** by implementing **JWT authentication** and engineering a dynamic **Role-Based Access Control (RBAC)** system to enforce strict API authorization boundaries.
- Protected backend services from API abuse and brute-force attempts by deploying custom **rate-limiting middleware (Redis/Token Bucket)**, capping traffic at **100 requests per minute** per IP to guarantee **99.9% uptime** for active users.
- Optimized server memory utilization and front-end render times by replacing offset-based pagination with **cursor-based pagination** for high-volume data feeds, keeping payload delivery under **80ms.**
- Engineered product listing by implementing server-side pagination, sorting, and filtering, enabling efficient retrieval of **10,000+ records** with reduced database load.
- Containerized the application using **Docker**, reducing local environment setup time from 2**0 minutes to under 5 minutes** for new developers.
- Gained hands-on exposure to **AWS cloud services, ReactJS, GitHub Copilot, Claude Code,** leveraging AI-assisted development for code generation, refactoring, debugging, unit-test creation, and documentation while validating generated outputs through code review, automated testing, and secure coding practices.

Calance — Gurugram, Haryana
Software Engineer I — *Jun. 2023 – Apr. 2025*

- Implemented **CI/CD pipelines** with Fastlane, **reducing build and testing time by 40%**, ensuring rapid delivery of robust and secure solutions.
- Designed and developed **12+ RESTful APIs** using Java, Spring Boot, Spring Data JPA, and PostgreSQL for user authentication, product catalog, cart, and order management.
- **Developed a Quickbase app within a four-week timeline**, automating device tracking and record management, reducing manual tracking time by 30% through automated email notifications and efficient table creation.

Projects

Patient Management System | *Spring Boot, Kafka, gRPC, AWS CloudMap, ECS* — Sept 2026 – Oct 2026

- Designed and developed a microservices- based patient management platform en- abling CRUD operations, appointment scheduling, and inter-service data sharing.
- Implemented **gRPC** for synchronous and **Kafka** for asynchronous inter-service communication.
- Implemented the **circuit breaker pattern** for fault tolerance and used **AWS CloudMap** for dynamic service discovery.
- Optimized data retrieval using **pagination** and **indexing**, improving query efficiency for large datasets.

Technical Skills

Languages: Java, TypeScript/JavaScript, Python, Dart, C++, SQL
Frameworks & Libraries: Spring Boot (Spring MVC, Spring Security, JPA), React.js, Node.js, Express, Flask
Cloud & DevOps: AWS (EC2, S3, Lambda, API Gateway, CloudFormation), CI/CD.
Databases & Tools: MongoDB, Redis, MySQL, Git, Linux, Postman, Crashlytics, GitHub Copilot, Claude Code.

Achievements

- Solved **1000+ problems** across LeetCode, GeeksforGeeks, and AtCoder; achieved a maximum **LeetCode rating of 1600.**
- Received recognition from VP of Engineering for **completing a project under a 4 week timeline** at Calance.
- Ranked among the top **0.2% out of 1.5 million candidates** in JEE 2019. Achieved 3rd rank in Semester II in the department with a **9.4/10 GPA.**