Nayan Singhal

Software Engineer | Backend & Full Stack | Node.js | Java

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TECHNICAL SKILLS

Backend: Node.js, Express, Java, Spring Boot, Spring Data JPA, REST APIs, Microservices, API Gateway, WebSockets

Databases & Caching: MySQL (Relational/SQL), MongoDB, Redis, Prisma ORM, Database Indexing, Redlock

DevOps & Observability: AWS (EC2), Docker, CI/CD (GitHub Actions), Staged Rollouts, Sentry Alerting, Logging, p95 Metrics

Security: JWT Authentication, RBAC Authorization, Least-Privilege Access, Secure Session Management, Idempotent APIs

Agile & Testing: Agile/Scrum, Sprint Planning, Code Reviews, JUnit, Mockito, Jest, Unit Testing, Production Debugging

Frontend: React, Angular, Vue.js, Next.js, TypeScript, JavaScript (ES6+), HTML5, CSS3, Redux, Zustand, Tailwind CSS

Fundamentals: Data Structures & Algorithms, OOP, Design Patterns, System Design, Distributed Systems

AI & Tools: Cursor, Claude Code, AI-Assisted Development, Git, GitHub, Postman, Chrome DevTools, Figma

EXPERIENCE

Classcard Remote (India)

Software Engineer *Apr 2024 – Present*

- **Owned** features end to end as **sole web engineer**, from design to **staged rollout**, for a platform serving **10,000+ active users** across **400+ academies**; **debugged production** via **Sentry alerting**.
- **Built** a real-time chat feature from 0 to 1 on a **distributed, event-driven backend** (**WebSockets**, **Redis**), cutting message latency by **3–5s** to **sub-second** with **connection resilience** and offline fallbacks.
- **Resolved a performance bottleneck** by tracing **REST API** calls, cutting requests per view from **41 to 6** and load time from **6s to 2.25s** by eliminating redundant calls and ghost requests.
- **Optimized** Core Web Vitals on invoicing: Cumulative Layout Shift down **95%** (0.554 to 0.027), Total Blocking Time down **8%** via lazy loading, and bundle size down **12%**.
- **Integrated AI tools** (Cursor, Claude Code) into daily development, saving **2 days per Agile/Scrum sprint**.
- **Tech Stack**: Node.js, Express, MySQL, Redis, WebSockets, Sentry, Angular, Vue.js, TypeScript

Srijcon Innovations Remote (India)

Software Engineer Intern *May 2023 – Jul 2023*

- **Reduced** page load time **35%** through route-level **code splitting**, dynamic imports, image/SVG optimization and removing unused JavaScript via **bundle analysis**.
- **Designed** a library of **20+ reusable, configurable components** adopted across **7 screens**, replacing duplicated per-screen code with one **maintainable, testable** design system.
- **Tech Stack**: React, TypeScript, Tailwind CSS

PROJECTS

StayEase – Distributed Booking Platform (Backend + UI) GitHub Live

- **Designed and built** 4 **microservices** (auth, hotel, booking, notification) with **REST APIs** behind an **Express API Gateway**, backed by **MySQL**, with **JWT authentication** and **RBAC authorization** enforcing **least-privilege access**.
- **Prevented** double-booking under **concurrent load** using **Redis**/**Redlock distributed locking** and **idempotency keys** for safe retries; built a responsive **React + TypeScript** UI for mobile and desktop.
- **Tech Stack**: Node.js, Express, MySQL, Redis, React, TypeScript, Tailwind CSS

Lotion – Notion-Style Productivity App GitHub Live

- **Shipped** real-time collaboration, nested pages and rich-text editing; integrated **Clerk** auth, **Stripe** billing and **i18next**; deployed on **Vercel**.
- **Tech Stack**: Next.js 14, TypeScript, BlockNote, Clerk, Stripe

ACHIEVEMENTS

- **Latency**: Reduced **p95 API latency by 54%** through **Redis caching** and **database indexing**.
- **LeetCode**: **500+** problems solved, peak contest rating **1686**, **12** badges.

EDUCATION

Galgotias University Greater Noida, UP

B.Tech, Computer Science Engineering; GPA: 8.45/10 *Nov 2020 – Apr 2024*