

NAWIN KUMAR SHARMA

Software Engineer | Full Stack & AI

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SUMMARY

Results-driven Full Stack Developer with experience building production-grade web applications using **TypeScript, React, Next.js**, and **Java/Spring Boot**. Built enterprise internal tools, multi-tenant **B2B SaaS** platforms, and **AI-powered** applications, with expertise in distributed systems, REST APIs, real-time architectures, and **Retrieval-Augmented Generation (RAG)**.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Java, Python

Frontend: React, Next.js, Tailwind CSS, Shadcn/UI, React Native (Expo)

Backend: Node.js, Express.js, Spring Boot, Socket.IO, Redis, RESTful APIs, WebSockets, JUnit

Databases: PostgreSQL, MongoDB, SQL, Prisma, Drizzle

AI/ML: Generative AI, RAG, Tool Calling, AI SDK, LangChain, Qdrant, Mem0, LLM APIs

DevOps & Cloud: Git, Docker, Kubernetes, Jenkins, CI/CD, AWS (EC2, S3), Azure, Rancher, Turborepo

Concepts: Distributed Systems, System Design, Microservices, Real-Time Systems, Agile/Scrum

PROFESSIONAL EXPERIENCE

Software Development Engineer Intern

Feb 2026 – Aug 2026

Lumen Technologies

Bengaluru, India

- Rebuilt 2 business-critical internal tools, migrating from legacy **ASP.NET** to **Java/Spring Boot** and owning the full stack – frontend, backend, database, testing, and deployment.
- Helped reduce operational costs by an estimated **\$60K+ annually** and cut page load times from **~2.5 s to ~300 ms** by replacing slow, maintenance-heavy legacy systems with optimized, scalable services.
- Shipped through **Jenkins** CI/CD pipelines on Rancher-managed **Kubernetes** clusters on **Azure**, backed by **JUnit** unit and end-to-end tests.

Full Stack Developer

July 2025 – Feb 2026

CarboInsights

Nashik, India (Remote)

- Built a multi-tenant **B2B SaaS** platform (**React, TypeScript**) adopted by **5 manufacturing companies**, processing **1M+ emission records** with real-time dashboards and automated Excel reporting.
- Designed a configurable **Multi-Framework Emission Engine** supporting **5+** regulatory frameworks (WSA, CBAM, Green Steel) via dynamic SQL generation and variable emission factors, replacing a manual Excel/Tally/SAP workflow and cutting compliance reporting from hours to minutes.
- Engineered an intelligent **AI chatbot** using the **AI SDK** and **RAG**, combining retrieval with live database insights and persistent, context-aware sessions for emission analysis and sustainability recommendations.

KEY PROJECTS

StreamAI [🔗](#) [🔗](#) | Next.js, AI SDK, Qdrant, LangChain, Prisma

2025

- Built a production-grade **AI chat platform** with streaming responses and **virtualized rendering**, sustaining sub-second perceived latency across long, multi-turn conversations with thousands of messages.
- Implemented **Retrieval-Augmented Generation (RAG)** over PDFs, websites, raw text, and YouTube transcripts, indexed in **Qdrant** for fast semantic search and grounded answers.
- Integrated long-term memory via **Mem0** to persist user facts, preferences, and context across sessions for personalized responses.

WatchNChill [🔗](#) [🔗](#) | Next.js, Socket.IO, Redis, YouTube API

2026

- Built a real-time **YouTube watch party** platform with synchronized playback, per-room live chat, and role-based host controls, powered by a custom **Next.js** server hosting **Socket.IO** over full-duplex WebSockets.
- Engineered a custom **useVideoSync** hook bridging the YouTube IFrame API with Socket.IO to broadcast play, pause, and seek events with periodic re-sync, maintaining playback synchronization with approximately **200 ms** drift during network fluctuations.
- Reduced backend database traffic by persisting room and session state in **Redis**, enabling stateless WebSocket servers that scale horizontally.
- Implemented host promotion and auto-close on host exit, and validated every client payload with **Zod** schemas for type-safe, conflict-free playback control.

EDUCATION

Jain (Deemed-to-be University), Global Campus

2022 – 2026

B.Tech, Computer Science and Engineering – CGPA: 8.6/10

Bengaluru, India

Trinity International College

2020 – 2022

Higher Secondary Education - Science (Computer) - GPA: 3.68/4.0

Kathmandu, Nepal

PUBLICATIONS

- Research Publication – Comparative Study of Code Generation by AI Models – IEEE, ICCRTEE 2025**

May 2025

CERTIFICATIONS

- CCNAv7: Switching, Routing, and Wireless Essentials – Cisco**

Dec 2024

- CCNAv7: Enterprise Networking, Security, and Automation – Cisco**

Dec 2024