

NITIN PANWAR

Senior Software Engineer

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PROFESSIONAL SUMMARY

Senior Software Engineer with **5+ years** of experience owning and building products end-to-end across web, mobile, and backend systems. Built customer-facing platforms from scratch that directly drove revenue growth, including data analytics tools and RAG-powered AI products. Deep expertise in real-time data pipelines (Kafka, MQTT), distributed systems, and cloud-native architecture with a proven track record of leading technical initiatives and delivering measurable business outcomes.

WORK EXPERIENCE

Software Engineer

AMPD Energy

September 2025 – Present

Bangalore, India

- Architected and built **AMPD PQ** from scratch — a product qualification platform enabling customers to upload consumption data and evaluate CO2 reduction and economic savings, reducing the customer evaluation cycle from **days to under 5 minutes**.
- Developed **AMPD Charlie**, a RAG-powered AI assistant that cut average support resolution time by **40%**, improving debugging speed and customer satisfaction.
- Built and maintained scalable real-time data ingestion pipelines using **Kafka** and **MQTT** for high-throughput energy device telemetry.
- Developed backend services using **NestJS**, **GraphQL**, and **TimescaleDB** for energy device data and analytics.
- Tech Stack: Kafka, MQTT, NestJS, Vue.js, GraphQL, TimescaleDB, React Native, Docker, Kubernetes, AWS, Terraform.

Software Development Engineer II (*Promoted from SDE I*)

BITCS

Feb 2022 – Oct 2025

Noida, India

- Architected and led the development of **Raven**, an internal issue management system, improving incident tracking efficiency by **40%** as measured by mean time to resolution.
- Increased test coverage to **75%** across core modules, reducing production bugs and improving release confidence.
- Optimized frontend performance by implementing caching strategies, **reducing API call latency by 30%** and improving Lighthouse performance score by **25 points**.
- Built a company-wide real-time WebSocket-based notification system, improving cross-team incident response and communication.
- Designed and optimized database schemas and query patterns, **reducing average query execution time by 40%** through index optimization and query refactoring.
- Mentored **4 junior engineers** through structured code reviews and pairing sessions, accelerating their ramp-up to independent contributors.
- Tech Stack: React, TypeScript, GraphQL, AWS (S3, EC2, RDS, CloudWatch), PostgreSQL, Docker, Kubernetes.

Frontend Developer

Sapio Analytics

Aug 2021 – Nov 2021

Mumbai, India

- Developed an interactive analytics dashboard with real-time data visualization using **D3.js** and **Plotly.js**.
- Implemented a geospatial map feature using **MapBox** for state-wise data exploration.
- Improved initial page load time by **35%** through code splitting, lazy loading, and bundle optimization.
- Tech Stack: React, Material UI, Mapbox, D3, Redux, Plotly.js, Google Charts.

PROJECTS

Dicta – AI Speech-to-Text for macOS

- A native macOS app that transforms speech into polished text with AI transcription — runs entirely on-device with no cloud dependency, no subscription, and no usage limits.
- Tech Stack: Rust, Tauri, TypeScript, On-device ML.

nullmail – Temp Mail SMTP Service

- Fully self-hostable temporary email + SMTP service built with high performance Go backend.
- Tech Stack: Go, SMTP, Docker, PostgreSQL.

NL2SQL – Natural Language to SQL Agent

- Converts natural language queries into SQL using LangChain + FastAPI with live DB execution.
- Tech Stack: FastAPI, LangChain, React, PostgreSQL, OpenAI API.

SKILLS

Languages & Frameworks

– JavaScript, TypeScript, Python, Go, C++, Rust, Node.js, NestJS, React, React Native, Next.js, Vue.js, GraphQL.

AI & LLM Tooling

– LangChain, LangGraph, Prompt Engineering, RAG Pipelines, Tooling, MCP servers.

Databases & Storage

– PostgreSQL, MySQL, MongoDB, Redis, TimescaleDB, Pinecone.

DevOps & Cloud

– Docker, Kubernetes, Terraform, AWS (EC2, S3, RDS, Lambda, IAM), GCP, Kafka, MQTT, CI/CD, WebSockets.

EDUCATION

Meerut Institute of Engineering and Technology

Bachelors in Computer Science

Meerut, India