

SAURABH JAINWAL

Senior Backend Engineer | Full-Stack Developer

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PROFESSIONAL SUMMARY

Senior Backend Engineer with over 4 years of experience architecting, building, and scaling enterprise-grade software. Single-handedly built and maintained the entire backend for a large-scale e-commerce platform that grew from 1,000 to 100,000 users. Experienced across the full software lifecycle, from backend infrastructure design to web and mobile application development. Proficient in building AI-powered systems including RAG pipelines, OCR processing with multi-LLM setups, and intelligent pricing tools. Proven track record across international environments spanning India, the UK, and the Middle East. Passionate about Japanese tech culture and actively learning Japanese.

TECHNICAL SKILLS

Languages:	Java, TypeScript, JavaScript, Go, Python
Backend:	Node.js, GraphQL, Apollo Server, NestJS, Spring Boot, RESTful APIs, Microservices
Frontend:	React.js, Next.js, Expo, Electron.js, Tailwind CSS, HTML5, CSS3
AI/ML:	RAG Pipelines, OCR Processing, LLM Integration, GitHub Copilot, ChatGPT API
Databases:	PostgreSQL, MongoDB, Redis, MySQL, SQLite, Firebase, ClickHouse, Neo4j, DGraph, DynamoDB
Cloud & DevOps:	AWS (EKS, Serverless, S3), GCP, Docker, Kubernetes, Helm, Terraform, Pulumi, Ansible, CI/CD
Messaging:	RabbitMQ, Apache Kafka, AWS SQS
Monitoring:	Grafana, Prometheus, Loki, New Relic

PROFESSIONAL EXPERIENCE

Senior Backend Engineer | Suplyd

Feb 2023 - Present | Cairo, Egypt (Remote/Hybrid)

- Single-handedly architected, designed, built, deployed, and maintained the entire backend for a large-scale e-commerce platform serving Egypt and Middle East markets, while also contributing to the web and mobile applications.
- Scaled the system from 1,000 users to 100,000 users over three years without requiring a major rewrite, demonstrating robust architecture decisions from day one.
- Implemented Apollo Router for federated GraphQL architecture, improving API response times by 40%.
- Designed and optimised PostgreSQL database schemas and queries, reducing query execution time by 35%.
- Built cloud-native applications on AWS using EKS, managing containerised applications with Kubernetes and Helm.
- Integrated RabbitMQ for asynchronous message processing, handling 5,000+ messages per minute.
- Built a RAG-based recommendation system that helps customers identify products suited to their needs, improving UX.
- Developed an OCR pipeline for customer KYC processing, handling printed and handwritten data through multiple validation stages, virus checks, and a multi-LLM setup that generates finalised reports.
- Designed and built an AI-powered competitor pricing system with a full dashboard, graphs, and management interface entirely in-house, directly contributing to increased traffic and sales.
- Built multiple internal developer tools: MongoDB schema-to-TypeScript class generator, ergonomic VS Code themes, and full ETL systems with a GUI built in Go.
- Established monitoring and alerting systems using Grafana, Prometheus, and New Relic for 99.9% uptime.
- Mentored junior developers on backend development best practices and code review processes.

Technologies: AWS (EKS, S3, Serverless), Node.js, Apollo GraphQL, PostgreSQL, MongoDB, Go, Python, Next.js, Kubernetes, Helm, RabbitMQ, Redis, Grafana, Prometheus, New Relic

Backend Engineer | Raftlabs

Oct 2021 - Jan 2023 | India (Remote)

Joined as a Node.js intern and was offered a full-time Backend Engineer position. Key contributions included:

- Part of a core team building a desktop application that combined the functionality of Microsoft Teams, Slack, Google Calendar, and Google Meet into a single platform. Worked across both ends: backend using Hasura GraphQL Engine, NestJS, AWS EKS, and AWS Serverless, and frontend using Next.js and Electron.js.

- Served as team lead for a US healthcare project (Galen). Built a secure, HIPAA-compliant, SOC 2-approved system enabling remote appointments, scheduling, and audio/video calls with zero drop in quality. The application interfaced with specialised hardware allowing quarantined patients to live-stream vitals to their doctors remotely.
- Implemented site reliability engineering practices, achieving 99.8% system uptime.
- Automated deployment pipelines using CI/CD best practices, reducing deployment time by 60%.
- Optimised application performance through code profiling and database query optimisation.

Technologies: Node.js, NestJS, Hasura GraphQL, PostgreSQL, MongoDB, Redis, Docker, AWS (EKS, Serverless), Next.js, Electron.js, Firebase, CI/CD

Node.js Developer Intern | Taxvisor

Apr 2021 - Sep 2021 | India

- Developed a cross-platform desktop finance management application using Electron.js.
- Built real-time data synchronisation between Firebase backend and React.js frontend.
- Implemented offline-first architecture with SQLite for local data storage.
- Created automated tax calculation algorithms, reducing manual processing time by 80%.

Technologies: Node.js, Firebase, React.js, Electron.js, SQLite

PROJECTS

mongo-auto-type-gen (Node.js, Go)

A developer tool that introspects MongoDB collections and uses samples to auto-generate TypeScript types/interfaces/classes. Published on npm.

KastQL (Go, SQLite, Redis, GraphQL, Next.js)

A full-fledged GraphQL engine with a developer-friendly setup and a CLI tool. In progress.

commit-better (Node.js)

A CLI tool that generates descriptive and meaningful commit messages. Published on npm.

Sleepy Nights (VS Code Theme) (JSON)

A VS Code theme designed for night coders with warm colours and low contrast for reduced eye strain. Published on the VS Code Marketplace.

Wave Runner (C#, Unity Engine)

An Android/PC game about dodging obstacles and collecting points.

TGP (Node.js)

A CLI tool that quickly scaffolds a TypeScript-based GraphQL server using Apollo and Prisma as ORM.

SJ-server-client (Node.js)

A CLI tool to create a basic Express and React project template for beginners.

Issue Tracker (Node.js, MongoDB, GraphQL)

A GraphQL-based issue tracking web application built with SSR React, GraphQL, and Express.

EDUCATION

Bachelor of Computer Applications (BCA) | IGNOU, New Delhi | 2017 - 2021 | Grade: A

Diploma in Software Technology | NSIC, New Delhi | 2018 - 2021 | Grade: A1

KEY ACHIEVEMENTS

- **Solo Architecture:** Single-handedly designed and built the complete backend for an e-commerce platform that scaled from 1,000 to 100,000 users over three years, remaining in production without a major rewrite.
- **AI Systems:** Built three distinct AI-powered systems in production: a RAG recommendation engine, an OCR/multi-LLM KYC pipeline, and a competitor pricing intelligence tool.
- **Performance:** Improved application response times by 40% through GraphQL federation and caching strategies.
- **Reliability:** Maintained 99.9% uptime for production systems serving 100,000+ users.
- **Cost Optimisation:** Reduced cloud infrastructure costs by 25% through efficient resource management.
- **Team Leadership:** Led the Galen healthcare project as team lead; mentored 3 junior developers, improving team productivity by 30%.
- **Healthcare Compliance:** Built a HIPAA-compliant, SOC 2-approved telemedicine system with real-time video, custom hardware integration, and zero-drop call quality.