

PAVITTAR SINGH

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Senior Software Engineer · Backend & Full-Stack

Senior software engineer with 6+ years building product-grade backends and full-stack web apps for SaaS and consumer startups. Currently focused on scalable Node/NestJS systems on AWS, with hands-on AI and agentic tooling.

WORK EXPERIENCE

Jul 2025 – Present

Senior Software Engineer

Kuby Ltd. · Cyprus · Remote

- Architected a scalable backend on **NestJS**, **TypeScript**, **PostgreSQL**, and **Prisma**, running on **AWS**.
- Re-architected a fragmented microservice application into a **modular monolith**, reducing operational complexity and tightening deploy cohesion.
- Shipped a **multi-portal Next.js frontend** (customer, companion, admin) on Vercel, routing legacy reseller domains through Next.js middleware to preserve existing URLs.
- Designed a **Handlebars strict-mode email-template pipeline** with environment-aware URL substitution across staging and production, eliminating a class of broken-link bugs.
- Led a data migration from legacy **MongoDB** and **MySQL** to **PostgreSQL** via custom Python ETL scripts, standardizing data format.
- Migrated file storage from EFS to **AWS S3**, cutting **cloud storage costs by 92.5%**.
- Built the staging CI/CD pipeline on **GitHub Actions** → **Docker** → **EC2**, standardizing release cadence; added **Jest** coverage across NestJS APIs.
- Built internal **AI agents and dev tooling on the Anthropic Claude SDK**, and ran **Claude Code** as a daily IDE pair — accelerating architecture exploration, code review, and refactors.
- Owned **cross-functional communication with founders and product leads** on launch scope, production-crisis triage, and roadmap alignment across a remote, multi-time-zone team.
- Stood up team **operating cadence** — Slack, Trello, and structured release/triage process — for an early-stage engineering function.

Aug 2024 – Jun 2025

Career Break — MCA & AI Upskilling

- Completed **Master of Computer Applications (MCA)** from IGNOU, finishing coursework deferred during prior full-time roles.
- Deep-dived into **agentic frameworks**, **LLM tooling**, and **RAG** through hands-on prototypes — directly applied at Kuby.

Aug 2023 – Jul 2024

Senior Software Engineer

Karmasuite · San Francisco, US · Remote

- Drove core development of Karmasuite's **non-profit grant-management SaaS** on **Next.js**, **tRPC**, **PostgreSQL (NeonDB)**, **Prisma**, and **Inngest**.
- Owned the **Fund Management module**, letting organizations create and oversee multiple funds with distinct budgets and objectives.
- Built a fine-grained **Permission Management System** on Clerk + tRPC, enforcing role-based access across pages and APIs.
- Optimized API performance by trimming response payloads, splitting endpoints, and substituting raw SQL where Prisma was a bottleneck.
- Shipped reusable React + Tailwind UI components and AG Grid spreadsheets with save-as-you-edit semantics.

Dec 2021 – Aug 2023

Frontend Engineer (SDE I)

Kenko Health · Bengaluru, India

- Owned **kenkohealth.in** end-to-end on Next.js, TypeScript, MUI, and Redux for the consumer health product.
- Mentored a team of **3 frontend developers**; enforced quality with ESLint, Husky, and Prettier.
- Improved site speed by ~60%** via SSR, code-splitting, lazy loading, and Lighthouse-driven audits — lifting SEO and reducing bounce.

SKILLS & TOOLING

Backend

Node.js NestJS Express.js tRPC
Prisma PostgreSQL MongoDB MySQL
Inngest Firebase

Frontend

React Next.js Redux Tailwind CSS
Material UI Radix UI React Query
React Hook Form Framer Motion

Languages

TypeScript JavaScript Python SQL
HTML CSS/SCSS

DevOps & Platforms

AWS (S3 EC2 EFS) Docker Vercel
GitHub Actions Git

Tools & Testing

Jest Playwright ESLint Prettier Sentry
Jira Linear VSCode

EDUCATION

2022 – 2025

Master of Computer Applications (MCA)

IGNOU · New Delhi, India

2015 – 2018

Bachelor of Computer Applications (BCA)

IGNOU · New Delhi, India

PROJECTS

drill

2026

AI-powered daily workout app — personalized workouts generated by Claude with exercise swaps and set/rep logging.

Tech: TypeScript, Anthropic Claude SDK

mechadealer

2024

FinTech platform letting retail investors deploy and monitor automated trading strategies with real-time performance metrics.

Tech: Python, FastAPI

editorjs-html

2020 · 379 stars

Open-source library converting Editor.js JSON into clean semantic HTML. 379 GitHub stars, actively maintained, published on npm.

- **Cut infrastructure cost by ~40%** by moving the Next.js app to AWS via the Serverless Framework.
- Built a B2B internal portal on MUI, react-admin, React Query, and React Hook Form.
- Designed and shipped **Kenko Quiz V3** — a conditional-path health assessment journey serving **50K+ users**.
- Instrumented UTM-tracked user journeys, enabling marketing to measure and optimize campaign funnels.
- Integrated Sentry for real-time error tracking, shortening bug-resolution cycles.

May 2021 – Nov 2021

MERN Stack Developer

Applere Technologies · India

- Delivered **4 end-to-end web applications** (e-commerce, sales, recruitment) — full-stack ownership from architecture to production.
- Built **JK Sales Smart** on React with **real-time SAP API sync** via Node.js Event API and Socket.io.
- Standardized deployments across projects on **AWS EC2** with NGINX, PM2, and a GitHub deploy pipeline.
- Mentored 3–5 junior developers via code reviews and served as primary technical liaison to clients.
- Used **AWS S3** for secure file storage and Node.js + cron for task automation.

Jul 2020 – Dec 2020

JavaScript Developer

The Loot · Tamil Nadu, India · Freelance

- Launched and maintained *theloot.app*, a full-stack K-12 educational platform.
- Engineered a **user-engagement and Rewards system** on **Firestore Cloud Functions** in a microservice layout.
- Built an internal **React** dashboard for data management, monitoring, and admin decision-making.
- Managed the Firebase backend for secure, efficient data storage and retrieval.

Nov 2019 – Apr 2020

Web Developer

Augment Systems · New Delhi, India · Internship

- Maintained the **Orders Management** project on TypeScript, Angular, and Node.js.
- Built a proprietary **Citation Engine** auto-generating correctly formatted academic citations.
- Assisted with **AWS EC2** deployment and maintenance.

Tech: TypeScript, Rollup, Jest, npm

Conway's Game of Life

2025  

Web-based simulation visualizing how complex evolving patterns emerge from simple rules.

Tech: React, TypeScript

BLOGS

Unique IDs... Which is the best? 

How consistent hashing scales distributed systems 

Deciphering CAP: The fundamental trade-off in distributed systems 