

Jaspreet Singh

📍 Punjab, India ✉ hi@jaspreetsingh.dev ☎ (91) 98768-88062 🌐 in/jaspreetsinghdev

PROFESSIONAL SUMMARY

Full-Stack Systems Engineer with 5+ years of experience building scalable, production-grade systems across web, mobile, and backend. Experienced in designing multi-tenant platforms, real-time systems, and automation pipelines that replace manual workflows and improve operational efficiency.

Strong ownership across system design, development, and deployment, with experience integrating AI/LLM capabilities into production systems. Interested in building distributed systems and high-impact products at scale.

EXPERIENCE

Software Engineer – Automation & Scalable Systems

Marks Emballage Pvt. Ltd.

July 2024—Present, HP, India

- Architected and delivered a production-grade multi-tenant ERP platform that completely replaced spreadsheet-based workflows for procurement, production scheduling, inventory, and dispatch across multiple business units, driving full operational automation and eliminating manual errors.
- Designed and implemented an automated production scheduling engine that intelligently balances machine load, order priority, and shift availability, reducing manual scheduling effort to zero and enabling optimal resource utilization.
- Engineered real-time machine interfacing systems to capture live shop-floor production data across multiple lines, replacing manual data entry and providing instant visibility for data-driven decision-making and performance optimization.
- Implemented PostgreSQL Row-Level Security (RLS) for complete tenant isolation and deployed full CI/CD pipelines (GitHub Actions → Vercel) with Supabase backend, ensuring enterprise-grade security, scalability, and zero-downtime releases.
- Owned end-to-end system design, database architecture, frontend (Next.js/React), backend (Node.js/Supabase), and production infrastructure, delivering a high-performance manufacturing solution that significantly improved operational efficiency.

Freelance Full-Stack Systems Engineer

Freelance

July 2021—Present, Remote

- Built and shipped **UrbanRoutes**, a complete Non-Emergency Medical Transport (NEMT) fleet management platform (Admin, Driver, and Passenger apps from a single Flutter codebase), implementing Supabase Realtime for live GPS tracking and trip status synchronization—completely eliminating phone-based dispatch and enabling self-booking for higher operational throughput.
- Developed **BookDrive**, an AI-powered CRM for the UK driving instructor market with smart scheduling, automated reminders, and gamification (streaks, badges, leaderboard) using OpenAI GPT-4; resulted in significantly higher user session frequency and improved pass rates through intelligent engagement features.
- Designed and launched **VillageWala**, an end-to-end AgriTech marketplace (Flutter + Supabase) with e-commerce for feed/medicine, vet bookings, and in-app messaging—published on Google Play Store—streamlining transactions and connectivity for farmers, consumers, and vets.
- Engineered **TrainEasy**, a full-stack Fitness SaaS platform (web + mobile) that replaced spreadsheet-based client management with automated scheduling and progress tracking, enabling coaches to scale memberships efficiently.
- Created **PetsPOS**, an offline-first cross-platform POS system with AI-powered stock reorder predictions, ensuring uninterrupted transactions and inventory management without internet connectivity.
- Delivered 5+ high-performance Next.js marketing and product websites achieving top Core Web Vitals scores, resulting in measurable increases in inbound leads and client revenue growth within weeks of launch.

Codrity Technologies

Application Developer

January 2021—August 2021, PB, India

- Designed scalable video-streaming infrastructure for an e-learning platform supporting multi-device playback and implemented personalized content recommendation logic, enhancing student engagement and learning outcomes.
- Developed cross-platform mobile interfaces using Flutter, improving UI consistency and user experience across devices.

Codrity Technologies

Application Developer

April 2017—July 2018, PB, India

- Built responsive client-facing web applications using modern HTML, CSS, and JavaScript, delivering consistent cross-device performance and professional client deliverables.

PROJECT

Multi-Tenant ERP (Label Manufacturing)

- Production-grade ERP with automated scheduling engine, real-time machine data integration, and full order lifecycle management. Eliminated manual workflows and enabled zero-intervention operations. Tech: Next.js, Supabase, PostgreSQL RLS, SAP B1. (**marksgroup.app**)

BookDrive – AI-Driven CRM

- Intelligent scheduling and gamified theory-test preparation platform using OpenAI GPT-4 that drove significantly higher session frequency and pass rates. Tech: TypeScript, OpenAI API. (**bookdrive.io**)

UrbanRoutes – NEMT Fleet Management

- Cross-platform real-time fleet suite with Supabase Realtime GPS sync that eliminated phone-based dispatch and enabled self-service booking/tracking.
Tech: Flutter, Supabase. (urbroute.com)

VillageWala – AgriTech Marketplace

- Full-stack e-commerce and booking platform (live on Google Play) that streamlined supply chain and service delivery for agriculture stakeholders.
Tech: Flutter, Supabase.

EDUCATION

Master of Business Administration – IT & Digital Marketing

I.K.G. Punjab Technical University - Punjab · 2021-2023

Bachelor of Technology – Computer Science & Engineering

I.K.G. Punjab Technical University - Punjab · 2017-2021

CERTIFICATIONS

- FreeCodeCamp – JavaScript Algorithms & Data Structures
- FreeCodeCamp – Front End Development Libraries
- FreeCodeCamp – Back End Development & APIs

SKILLS

Languages: TypeScript, JavaScript (ES6+), Dart, Python, SQL

Frontend: React.js, Next.js, Tailwind CSS, HTML5/CSS3, Core Web Vitals

Mobile: Flutter (iOS, Android, Web — single codebase)

Backend: Node.js, Deno.js, REST APIs, GraphQL, Supabase, PostgreSQL, Firebase

Infrastructure: AWS, Vercel, Docker, GitHub Actions, CI/CD, Nginx

Databases: PostgreSQL (Row-Level Security, query optimization), NoSQL, Supabase Realtime

AI/ML: OpenAI GPT-4 API, Google Gemini API, LLM integration, prompt engineering

Systems: Multi-tenant architecture, distributed systems, system design, RBAC

Fields of Interest: AI Engineering & LLM Integration, Distributed Systems & Real-time Architectures, Scalable Multi-tenant SaaS & ERP Platforms, DevOps & CI/CD Automation, Cross-platform Mobile Application Development.