

SARAVANA BHAVA

Principal Full-Stack Engineer & Web Systems Architect (100% Remote)

100% Remote / Worldwide | hello@sazm.in | sabajobs@gmail.com | sazm.in | github.com/saravana-bhava

PROFESSIONAL SUMMARY

Hands-on **Principal Full-Stack Engineer and Web Systems Architect with 20+ years of continuous production experience** (2004 – present) architecting, building, and scaling business-critical web platforms, e-commerce engines, and edge-native architectures. Successfully shipped **over 106 production systems** spanning high-concurrency backends, custom checkout workflows, and sub-second global web frontends. Combines deep computer science fundamentals (schema normalization, relational database indexing, caching topologies, API idempotency) with modern AI-accelerated development velocity (Claude, OpenAI, Cursor) to deliver tested, type-safe, production-grade software rapidly. Proven leader in asynchronous, remote-first engineering with rigorous written technical specifications, automated CI/CD quality gates, and zero meeting overhead.

CORE TECHNICAL COMPETENCIES

Languages & Runtimes:	TypeScript, JavaScript (ESNext), Python, PHP, SQL, HTML5, CSS3, Node.js, V8 Isolates (Cloudflare Workers)
Frontend & Performance:	Astro 7, React, Next.js, Tailwind CSS, Preact Islands, Zero-JS Architecture, WCAG 2.2 AA Accessibility, 100/100 Core Web Vitals
Cloud & Edge Infrastructure:	Cloudflare Workers, D1 SQLite, R2 Zero-Egress Storage, KV Namespaces, AWS (S3, EC2, SES), Docker, Nginx, Linux SysAdmin, Git / GitHub Actions CI/CD
Databases & Architecture:	SQLite (D1 Sessions API), MySQL, PostgreSQL; Covering Indexes, Query Tuning, Lamport Timestamps, RESTful APIs, Webhooks, Idempotency (HMAC-SHA256)
Commerce & Integrations:	Cashfree PA-CB, PayPal Subscriptions, Stripe, B2B Tax Invoicing (GST & Export LUT Compliance), Linear / Jira Webhooks, Headless CMS

PROFESSIONAL EXPERIENCE

Principal Software Engineer & Technical Consultant · [SazM](#)

October 2024 – Present | Remote

- Founded and operate a high-velocity Development-as-a-Service (DaaS) consultancy, delivering full-stack engineering features sequentially on a predictable 24–48 hour turnaround SLA.
- Architected and built the edge-native platform on **Astro 7, Preact islands, and Cloudflare Edge** (Workers, D1 SQLite, R2 object storage, KV sessions), achieving **100/100 across all Google Lighthouse metrics** (Performance, Accessibility, Best Practices, SEO) with sub-300ms global FCP.
- Engineered automated payment and recurring billing webhooks with **Cashfree PA-CB** (UPI, NetBanking, Cards) and **PayPal Subscriptions** (USD) with HMAC-SHA256 signature verification, atomic database deduplication, and automated B2B invoicing (prepared for 18% GST and export LUT compliance).
- Implemented automated CI/CD and edge preview workflows provisioning isolated live staging environments (preview-`<task-id>.sazm.in`) on Cloudflare Anycast with strict multi-repository sandbox boundaries.
- Constructed a self-serve client portal featuring drag-and-drop backlog prioritization, real-time SLA countdown watchdog with automated Telegram/email incident dispatch, 1-click subscription pausing/banking engine, and a 10% recurring MRR referral ledger.

Senior Engineering Leader & Project Lead · [Weismann Web](#)

January 2018 – September 2024 | Remote

- Spearheaded end-to-end architecture, development, and delivery of **70+ production web applications** across e-commerce, healthcare, real estate, and professional B2B services.
- Systematically refactored large monolithic applications into clean, maintainable modular architectures, eliminating critical performance bottlenecks and reducing technical debt.
- Optimized high-traffic MySQL database architectures by designing composite covering indexes and query tuning, **reducing database CPU utilization by 60%** across multi-million row datasets.
- Architected custom e-commerce checkout funnels, multi-vendor marketplace workflows, and third-party ERP/CRM integrations driving continuous transaction volume.
- Instituted strict written-first asynchronous technical governance, comprehensive code review checklists, and automated linting, maintaining unbroken delivery velocity across distributed teams.

Systems Architect & Team Lead · Vivid Infotech Software Solutions Pvt. Ltd. April 2010 – December 2017 | Chennai, India / Remote

- Architected and delivered scalable multi-tenant web applications, interactive social platforms, custom content management systems, and transactional enterprise portals.
- Managed and mentored a distributed engineering team of 10+ developers, conducting rigorous code reviews, defining architectural standards, and driving continuous improvement in code quality.
- Designed secure payment gateway integrations, role-based access control (RBAC) systems, and high-throughput RESTful API endpoints consumed by web and mobile clients.
- Collaborated asynchronously with international clients and product owners to translate complex business requirements into robust technical specifications and iterative release milestones.
- Honored with the prestigious "Pillar of VIVID" Award (2015) in recognition of exceptional technical leadership, system architecture contributions, and consistent delivery excellence.

Software Solutions Architect · IMedia January 2010 – March 2010 | Remote

- Engineered API-driven architectural specifications and secure payment processing workflows for dynamic online booking engines and e-commerce portals.
- Designed normalized relational database schemas and automated notification pipelines for transaction-heavy client platforms.

Lead Systems Engineer · Infowave Knowledgeware October 2006 – December 2009 | Remote / India

- Engineered enterprise-grade web applications across education, healthcare, and real estate sectors, driving core system architecture and database schema planning.
- Executed end-to-end performance optimization across the full software development lifecycle to deliver scalable, highly maintainable production systems.
- Conducted performance profiling, server configurations, and cross-browser frontend optimization for mission-critical client deployments.

Software Engineer · Early Career Web & Systems Engineering June 2004 – September 2006 | India

- Architected and developed dynamic web portals, database-driven business applications, and automated reporting tools utilizing PHP, MySQL, Apache, and Linux (LAMP).
- Configured production network topologies, firewall routing, and automated off-site backup cron routines for mission-critical client servers.

KEY SYSTEMS & ARCHITECTURAL CASE STUDIES

Edge-Native DaaS Engine: Built geo-routed checkout on V8 isolates with mutual exclusivity (<0.3ms CPU), routing India to Cashfree and global to PayPal Subscriptions without client-side toggles.

Zero-Table-Scan D1 Database: Designed distributed SQLite schemas with covering composite indexes and Lamport timestamps (D1 Sessions API), eliminating full table scans across all query filters.

Core Web Vitals Optimization: Migrated client frameworks to Astro 7 and Preact islands with zero external web fonts and inlined SVGs, achieving 100/100 Lighthouse performance, <200ms INP, and sub-300ms global FCP.

Ephemeral Staging Previews: Automated wildcard edge routing (* . sazm . in) linked to Git CI/CD pipelines, provisioning instant isolated staging environments for zero-meeting asynchronous client reviews.

EDUCATION & CREDENTIALS

Bachelor of Engineering (B.E.) in Information Technology – First Class 2000 – 2004
Manonmaniam Sundaranar University, Tamil Nadu, India

HONORS, AWARDS & CERTIFICATIONS

Pillar of VIVID Award (2015) – Awarded for outstanding technical leadership and architecture at Vivid Infotech.

Sun Certified Java Programmer / C & Java Certification (2006) – Comprehensive object-oriented software engineering certification.

NetPro Certified Networking Engineer (2004) – Network infrastructure, routing protocols, and systems security.