Sandeep Singh

Software Architect | AI Systems Engineering | Multi-Tenant SaaS | Backend Engineering

Montréal, QC, Canada | Open work permit (Canada) | +1 438 528 9022 | sandeepcn998@gmail.com
hellosandeep.com | linkedin.com/in/sandeep2194 | github.com/sandeep2194

SUMMARY

Software Architect with 8+ years of experience building and operating production software. Specializes in Go, multi-tenant SaaS, Docker-based microservices, event-driven systems and AI-agent delivery pipelines with enforced test, security and release controls. Progressed over four years at a production event-venue marketplace from part-time developer to team lead and software architect. Currently works with Revivo Technologies on its GrowthX and TravelX platforms.

TECHNICAL SKILLS

Languages	Go, TypeScript, JavaScript, Java, Elixir, Rust, Python, C#/.NET
Architecture	System design, microservices, event-driven architecture, domain modeling, multi-tenancy, OpenAPI-first API contracts, real-time systems, backend migration
Backend	Node.js, Spring Boot, Phoenix, River job queues, REST APIs, WebSockets, Zod contract validation, LLM (large language model) gateway, speech-to-text and text-to-speech services
Frontend and Mobile	React, Vite, TanStack Query, Tailwind CSS, React Native, Firebase
Data and Messaging	PostgreSQL (row-level security, sqlc), Redis (event bus, caching, background jobs), MongoDB, SQLite
Cloud and DevOps	Docker, AWS (S3, SES), GCP (Google Cloud Platform), Cloudflare, GitHub Actions, CI/CD (Continuous Integration and Continuous Delivery), blue/green deployment, canary releases, automated rollback, Sentry monitoring
Testing	Test-first development, replay parity testing, Go tests, Vitest, Playwright, ExUnit, JUnit
AI Engineering	AI coding-agent guardrails, multi-agent pipeline design, realtime voice agents
Payments	Stripe, Razorpay, QuickBooks Online
Earlier Experience	jQuery, Next.js, Flutter, PHP, WordPress, MySQL
Working Knowledge	Kubernetes, Terraform, Elasticsearch, LangGraph (limited or not recent hands-on use)

EXPERIENCE

Software Architect

Jun 2026 – Present

Revivo Technologies | Contract | Montréal, QC

Principal developer and architect of two platforms, GrowthX and TravelX, built through an AI-agent delivery pipeline, and moved the BitSocial API to Go. Also contributed to the Revivo company website (revivotech.in), and advise two to three independent founders on building products with AI agents.

GrowthX | Multi-tenant outreach CRM (WhatsApp, email, voice) | growthx.revivotech.biz

- Rebuild the CRM from Node.js and MongoDB to five Go services on PostgreSQL (API, AI agent, support agent, voice, WhatsApp gateway), with database-enforced tenant isolation (org_id plus row-level security).
- Gate each cutover to Go on a parity check that replays real traffic against the old and new versions, so the rebuild changes no behavior.
- Define one fixed architecture shared by both platforms, with Docker-based microservices: an LLM gateway and a speech service, so no application holds a vendor key.
- Connect agents and services over a Redis event bus, and use Redis for caching and background jobs.
- Run the task-to-release pipeline for both platforms: stakeholders post tasks in Telegram, AI agents prioritize them and build each feature test-first, looping through unit, integration and browser tests until they pass.
- Review screenshots of every finished feature and approve deployment from a mobile app with fingerprint authentication; agents then test and deploy through command-line tools.

TravelX | Hotel booking platform across India, pay at hotel | travelx.revivotech.biz

- Structure the backend as an OpenAPI-first Go service with a generated TypeScript client, PostgreSQL with type-safe SQL (sqlc) and River background jobs.
- Import the hotel catalogue from HotelX, processing photos into responsive image variants on Cloudflare R2.
- Launch a React, TypeScript and Vite progressive web app tested end to end with Playwright, with PDF and document generation through headless Chrome.
- Constrain AI coding agents with guardrails: tests come first, any test an agent edits, skips or weakens is restored, and auth, tenancy, payments and data writes stay under human review.

- Ship only signed, tested code through blue/green deploys with canary and automatic rollback; verify restored backups daily; document 111 incidents, 57 already closed by an automated guard.
- Maintain written architecture rules in every repository, including 36 linter-enforced Go rules.

TeamX | Multi-company HR: attendance, leave, Indian payroll | teamx.revivotech.biz

- Operate one HR product resold to several companies, on a Go (chi), PostgreSQL and River backend with a multi-company data model.
- Add face-verified check-in: a browser liveness check (MediaPipe) with server-side ArcFace matching, plus location-based check-in (Leaflet).

BitSocial | Decentralized social network (Nostr-compatible, Bluetooth-mesh fallback) | bitsocial.cc

- Port the BitSocial API from Elixir/Phoenix to Go through the same parity gate: 1,770 replayed API tests, 0 differences.

Lead Developer and Software Architect

May 2025 – May 2026

Salle Privée | Montréal, QC | Full-time | salleprivee.ca

Promoted after one year to lead a team of two other developers; held architecture, development and product management end to end; last remaining developer at departure.

- Defined the software architecture: domain model and real-time core in Elixir/Phoenix LiveView (messaging, Oban background jobs), with Node.js microservices for PDF quotes and image processing.
- Integrated Stripe and a two-way QuickBooks Online sync of customers, invoices and installment payments.
- Ran deployment, CI/CD, AWS infrastructure (S3, SES), access control and monitoring with Sentry.
- Acted as product manager, assigning tasks across the team, and reviewed pull requests (11 on the marketplace).

Full-Stack Developer

May 2024 – May 2025

Salle Privée | Full-time

- Delivered features across the front end and Node.js APIs of the event-venue marketplace.

Full-Stack Developer (Part-Time)

May 2022 – Apr 2024

Salle Privée | Part-time during studies

- Built and maintained front-end features and Node.js APIs for the marketplace while completing a college diploma.

Full-Stack Developer (SDE 1)

Jan 2020 – Jan 2022

Anand Soft World | Noida, India | Worked for Revivo Technologies

- Contributed to HotelX, a hotel PMS and channel management platform live at apps.revivotech.in/hotelx, on a Java 11 and Spring Boot back end (59 REST controllers) with MongoDB, Redis, Spring Security and JWT.
- Added Razorpay payments, Twilio and Kaleyra messaging, AWS S3 storage, invoice PDF generation, and scheduled jobs for booking expiry and channel-manager deactivation.
- Extended the React 18 admin front end (about 1,050 files; Redux Toolkit, Ant Design), tested with Jest and Playwright.
- Implemented the HotelX mobile app (then Revivo HMS) in React Native, TypeScript, Redux and Expo.
- Shipped features for client apps, including The Silence (Flutter and Firebase mobile, React web), plus React and React Native front ends on Node.js and REST APIs.

Software Developer

May 2017 – Jan 2020

ZENI Applied Sciences Pvt. Ltd. | Noida, India

- Developed software for healthcare, media and education clients: a real-time news app (Flutter, Firebase), a multi-location clinic operations platform, and a school management ERP system built as part of a team.
- Produced client websites in PHP and WordPress, including custom themes and plugins, on MySQL, with HTML, CSS, JavaScript and jQuery front ends.

EDUCATION

Diploma of College Studies (DEC), Computer Science Technology

2022 – 2024

Collège LaSalle | Montréal, QC

CERTIFICATIONS

CompTIA A+; Microsoft MTA HTML5 Application Development; Udacity React and JavaScript Nanodegrees

LANGUAGES

English (Professional), Punjabi (Native), Hindi (Native), French (A2, learning)