

SHUBHAM SONWANE

Full Stack Developer · Node.js / TypeScript / Next.js · AI Agents & LLM Systems · Real-Time 3D

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Available as a contractor worldwide · IST (UTC+5:30) — full overlap with CET, 4+ hrs with US Eastern mornings

SUMMARY

Full stack developer shipping production web applications, backend APIs, and AI agents for clients in the US, Italy, and India. Core stack is Node.js, TypeScript, and Next.js. Recent work centres on LLM systems that take real actions through tool/function calling, RAG, and streaming conversational agents on the OpenAI and Anthropic APIs alongside Rust (Tauri) desktop and Three.js/WebGL rendering. Currently contracting independently for US- and Italy-based clients.

EXPERIENCE

Full Stack Developer (Independent Contractor) — Self-employed Nov 2025 – Present

Remote · Clients in the United States and Italy

- Built a conversational agent for a vessel booking and tracking platform that completes bookings and returns live vessel status inside the chat tool/function calling against the client's APIs collapses a multi-page workflow into a single conversation.
- Implemented the retrieval and state layer behind it: RAG over product and operations documentation, streamed responses, and conversation memory persisted across sessions. Built on the OpenAI and Anthropic APIs and deployed to web, Telegram, and Discord.
- Deliver full-stack product work for two long-running clients: Next.js frontends backed by Node.js APIs on Fastify and Express, with GraphQL, Redis caching, and Postgres via Supabase.
- Handle deployment and infrastructure end-to-end Docker-based builds, Firebase services, and environment setup with no separate DevOps or platform team.
- Work directly with founders across a 4–9 hour time-zone gap: scoping, estimating, architecture decisions, and delivery without a project-manager layer.

Full Stack Developer — SeePossible Oct 2024 – Nov 2025

- Built a real-time 3D jewellery configurator (Three.js + React) supporting live diamond-shape, metal, and engraving customization shipped into Helzberg Diamonds' production storefront, serving thousands of shoppers daily.
- Replaced an Electron-based desktop renderer with a Tauri (Rust) build, cutting render times roughly 60% and shrinking install size and memory footprint significantly.
- Designed Node.js + Fastify backend APIs; reworked query patterns and added caching, taking p95 response times down about 40%.
- Owned CI/CD: automated test and deployment pipelines that moved releases from a multi-day manual process to same-day, with far fewer rollbacks.
- Prototyped gesture-controlled 3D viewing and a WebAR ring try-on experience.

Full Stack Developer — Avinashi Group of Companies Nov 2023 – Oct 2024

- Architected M84, an SGCCI government-facing platform (Next.js + Supabase) with role-based access control; 500+ active users in production.
- Built the BIM Next admin panel for architecture teams version control for 2D/3D design assets on Next.js, Solid.js, and PostgreSQL.
- Shipped Receipt AI: an OCR pipeline extracting structured fields from 1,000+ receipts per month with automated JSON export and ~95% field-level accuracy.
- Built an AI brand-ambassador tool generating marketing imagery from configurable model attributes.

Backend Developer (Node.js) — Artoon Solutions Pvt. Ltd. Jan 2023 – Sep 2023

- Built backend services for Diamond Connect, a baseball league management platform (Node.js, Express, MongoDB, Azure).
- Delivered scheduling and gameplay REST APIs inside a 35-developer agile organisation.
- Rewrote hot-path queries and added indexes, cutting page load times roughly 30%.

Full Stack Developer (Freelance) — Upwork 2021 – Dec 2022

- Delivered 15+ end-to-end e-commerce, SaaS, and internal-tool projects for clients across.
- Handled scoping, delivery, and deployment directly with clients.

SELECTED PROJECTS

- **Conversational Booking Agent** — Chat agent that books vessels, reports live status, and answers product questions without leaving the conversation. Tool calling against internal APIs, RAG over documentation, persistent memory. OpenAI & Anthropic APIs, Node.js; web, Telegram, and Discord.
- **3D Jewellery Builder** — Real-time WebGL configurator with dynamic material switching, engravings, and multi-ring setups. Three.js, React, Node.js.
- **Ring Try-On (WebAR)** — Browser-based AR letting users visualise rings on their own hands. WebAR, Three.js.
- **Receipt AI** — OCR receipt processing with historical tracking and structured exports. Node.js, OCR pipeline.
- **BIM Next Admin Panel** — Design management system with version control for 2D/3D assets. Next.js, Solid.js, PostgreSQL.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Rust, SQL

Backend: Node.js, Fastify, Express, NestJS, REST & GraphQL APIs, microservices

Frontend: React, Next.js, Three.js / WebGL, Tailwind CSS

Data: PostgreSQL, MongoDB, Redis, Supabase, Firebase, Prisma, Drizzle

AI: OpenAI & Anthropic APIs, tool / function calling, RAG, streaming, conversation memory, Telegram & Discord bots, OCR pipelines, workflow automation

Infrastructure: Docker, CI/CD (GitHub Actions), Cloudflare Workers & Pages, Azure, Git

Also: Tauri (Rust desktop), WebAR, RBAC, system design, performance optimisation

EDUCATION

Higher Secondary Certificate — Sardar Patel Vidhya Sankul, Surat, India 2020

Self-taught engineer.