

Siddharth S Singh

📍 Bangalore, India · 🌐 remote, any time zone ✉️ me@shantaram.xyz 🌐 [xyzshantaram](#) 🐙 [xyzshantaram](#) 🌐 [shantaram.xyz](#)

Software engineer, four years in production, most of it as an independent contractor owning a product end to end. I pick up unfamiliar stacks quickly and read before I write, then build systems I can reason about: a Rust and WebAssembly sandbox, the protocol runtime around it, a coding-agent harness, and the web apps on top. What I care about is open-source software that is useful, fast, and correct — worth reaching for, and simple enough that someone else can read and change it.

EXPERIENCE

Software Engineer (contract) Apr 2024 — Present

Soapbox Remote

- Built a plugin runtime that runs third-party mini-apps in a client with no code change: a **19k-line Rust crate compiled to WebAssembly** behind a TypeScript embedding layer, consumed by three independent clients. I wrote the runtime, the plugin specification, and the Rust core; each plugin gets an isolated Lua engine and no DOM access.
- Moved capability enforcement out of host JavaScript into Rust, so grants are clamped on every write and revoking one takes effect inside the running worker. **Implemented NIP-46 signing four ways** to prove it portable: a browser extension, a Rust desktop daemon, an ESP32 device I designed the board and firmware for, and a transport over LoRa mesh radio.
- Built the plugin-authoring agent (**tile-studio**, then a reusable devkit in **Ditto**) whose **edit-code** tool addresses lines by **content hash** to keep edits token-efficient. Contributed to **Nostrify**: wrote the initial version of its Postgres storage adapter — protocol filters compiled to Kysely queries over postgres.js, with migrations and benchmarks — and worked around a Deno compatibility bug in postgres.js to get it running. Built SQLite- and LMDB-backed event stores, and migrated the Nostrify package graph off JSR onto npm.

Founder and engineer 2023 — 2025

The Attention Button — an IoT desk toy, designed and sold Bangalore

- One person, whole product: parametric CAD, a board I designed and fabricated, firmware, a backend service, the website, and packaging. Sold to paying customers, open-sourced.

Freelance Software Engineer 2022 — Present

Fractional Finance · Ready Cloud Consulting · Common Ground Practice Remote

- **Common Ground Practice**: a Payload CMS and Next.js site on Postgres, sole engineer. **Fractional Finance**: Vue and Ethereum integrations. **Ready Cloud Consulting**: Angular components.

AGENT AND TOOLING WORK

thursday — an environment that gets more out of a cheap model 2026

Built on DeepSeek Harness · aidos and dotfiles-ai · React/TS

- **aidos**, its ticket kernel, moves verification into the execution model: only a human moves a ticket out of verification, evidence is a first-class row stamped with its author, and gates are predicates over evidence. An agent cannot forge a human sign-off or mark its own work done.
- **Turns model actions into computations wherever it can**. Deterministic context compaction folds session history with no model call; a bash guard parses each command and rewrites a wrong call into the right one; a bash graph draws each command chain and its exit codes. [dotfiles-ai](#), the plugin bundle underneath, adds inline actions on tool calls, per-role model fallbacks, a unified subscription view, and more.

SELECTED WORK

nostr-canvas — A sandboxed plugin runtime for third-party mini-apps: a specification, a Rust and WebAssembly core, [🌐 xyzshantaram/nostr-canvas](#) and three client integrations.

campfire — A reactive web framework: chainable DOM builder, reactive stores, no build step, no virtual DOM. Maintained since [🌐 campfire.js.org](#) 2021 on npm and JSR, with a docs site.

luacheck-ts — A 22k-line Lua static analyzer ported to TypeScript for the browser, Deno, and Node. [🐙 @xyzshantaram/luacheck-ts](#)

wizardkit — Build a step-by-step wizard as a Deno script, served as HTML over HTTP so the same script runs in a [🐙 @xyzshantaram/wizardkit](#) browser or a desktop window.

SKILLS

Languages	TypeScript, Rust, Lua, C, C++, Python, JavaScript
Systems	Rust to WebAssembly (wasm-bindgen , tsify), sandboxing and capability security, Web Workers, language tooling
Agents	Harness design, tool and permission gating, evidence and audit models, MCP servers, plugin systems
Web and ops	Deno, Node, React, Vue, Svelte, Postgres, SQLite, Linux, Docker, nginx. I run my own services in production.

EDUCATION AND SPEAKING

VIT Chennai 2020 — 2025

B.Tech, Electrical and Electronics Engineering Chennai, India

"Hackable By Default" — Talk at bitcoin++ Nairobi, 2026, on software that empowers users to extend it themselves, by [📺 youtu.be/PO1ggcj-Ic](#) building systems easy for both people and computers to understand.

REFERENCES

Chad Curtis — Soapbox James Sutton — Fractional Finance Jared Ready — Ready Cloud Consulting Contact details on request.