

# David Vennik

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git.mleku.dev/mleku | relay.orly.dev | smesh.mleku.dev | mleku.dev

## SUMMARY

Distributed systems engineer. 10 years building protocol implementations, relay infrastructure, and high-performance codecs in Go. Currently shipping production React 19/TypeScript. Operates live infrastructure serving real users. Advanced AI-augmented development with Claude Code — custom skills, MCP integrations, and agentic workflows for systems engineering.

## SKILLS

Primary	Go (10yr), TypeScript, React 19, Distributed Systems, Protocol Engineering
AI Engineering	Claude Code (custom skills, MCP servers, agentic workflows), AI-augmented systems design
Protocols	gRPC/Protobuf, WebSocket, Cryptography (secp256k1, Schnorr, ECDH, NIP-44, MuSig2)
Frontend	TanStack (Router/Query/Store/Form), Radix UI, Tailwind v4, Svelte, Playwright E2E
Infrastructure	Linux, Caddy, systemd, Badger KV (graph extensions), Docker, bare-metal, CI/CD
Additional	Rust (gRPC), SIMD optimization (AVX2), Domain-Driven Design

## PROJECTS & LIVE SYSTEMS

**dendrite** — Self-writing deterministic machine intelligence. One axiom pair, 3-bit seed, 8 opcodes, 64 states. Programs grow via algebraic lattice accretion. Not gradient descent. Not neural nets. Structure from constraint. 151 Go files.

git.mleku.dev/mleku/dendrite

**relay.orly.dev** — Production Nostr relay. Go, modular gRPC IPC (9 proto service definitions), Badger KV with graph extensions, SIMD-accelerated crypto, DDD architecture. 633 Go files.

next.orly.dev

**nostr.mleku.dev** — Go protocol library. Substantially improved secp256k1 implementation over btcec base. SIMD-accelerated codecs, zero-copy binary encoding, Schnorr/ECDH/MuSig2. 210 Go files.

git.mleku.dev/mleku/nostr

**smesh.mleku.dev** — Nostr client. TypeScript/Svelte. Forked independently by 3 developers.

git.mleku.dev/mleku/smesh

**plebeian-signer** — NIP-07 browser extension. Multi-identity key management, event signing. TypeScript, Chrome/Firefox, NIP-04/NIP-44 encryption. 81 commits, 33 releases.

github.com/PlebeianApp/plebeian-signer

## EXPERIENCE

### Full Stack Developer — Plebeian Market

Sep 2025 — present

100+ pull requests (84 merged) to a production React 19/TypeScript decentralized marketplace. Built NIP-99 product migration tool with multi-relay progress feedback, relay list publishing, NSFW content tagging, MapLibre GL map integration, responsive image variants. Authored comprehensive Playwright e2e test suite covering auth, products, collections, and payments.

React 19, TypeScript, TanStack Router/Query v5, Radix UI, Tailwind v4, NDK, Bun

**Senior Backend Engineer — Hubmaker Labs***Oct 2023 — Jul 2025*

Built Nostr relay with IPC interface to Internet Computer canister for distributed relay network. Engineered cross-protocol sync service: Nostr, Bluesky, and Farcaster events archived to Arweave. Designed real-time matchmaking engine for social platform.

**Protocol Engineer — Indra Labs***Oct 2022 — Sep 2023*

Designed source-routed network transport protocol with bidirectional location privacy (55 GitHub stars). Implemented onion-encrypted routing headers, relay payment channels, and gossip network in Go. Wrote protocol white paper. [github.com/indra-labs/indra](https://github.com/indra-labs/indra)

**Go Developer & Technical Writer — Quanterall***Feb — Jul 2022*

Authored Go training curriculum for developer onboarding. Designed hybrid consensus protocol (Kismet). [github.com/quanterall/kitchensink](https://github.com/quanterall/kitchensink)

**Backend Engineer — Dusk Network***Oct — Dec 2021*

Contributed to Go-based core node and Rust gRPC infrastructure for privacy-focused protocol.

**Systems Engineer — Energi***Jul — Sep 2021*

Built difficulty adjustment simulation framework for validating hard fork parameters.

**Systems Engineer — Parallelcoin***May 2018 — Sep 2020*

Designed novel large-integer-division hash function for proof of work. Built parallel block interval difficulty adjustment. Implemented LAN multicast UDP gossip for low-latency work distribution. Combined node, wallet, miner, and GUI into single multi-application binary.

**Independent Research***2012 — 2018*

Distributed consensus (Tendermint, BFT variants), Go systems programming.

**EDUCATION**

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Certificate IV in IT (Multimedia), Qantm College, Brisbane, Australia, 2003

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[git.mleku.dev/mleku](https://git.mleku.dev/mleku) (113 repos) | [github.com/I0k18](https://github.com/I0k18) (91 repos, historical) | Contributor to PlebeianApp/market as "woikos"