

David Vennik

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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.

Building and refactoring codebases using CSP/Actor/Domain Driven Design principles to eliminate footguns - races, deadlocks, livelocks and memory contention.

Skills

- **Primary:** Go (10yr), TypeScript, React 19, Distributed Systems, Protocol Engineering, CSP, Concurrency
- **AI Engineering:** Claude Code (custom skills, MCP servers, agentic workflows), AI-augmented systems design and architecture
- **Protocols:** gRPC/Protobuf, WebSocket, Cryptography (secp256k1, Schnorr, ECDH, NIP-44, MuSig2)
- **Frontend:** React, TanStack (Router/Query/Store/Form), Radix UI, Tailwind v4, Svelte, Playwright E2E
- **Infrastructure:** Linux, Caddy, systemd, Badger, Docker, bare-metal deployment, Github, Gitea

and Gitlab CI/CD

- **Additional:** Rust (gRPC integration), SIMD optimization (AVX2), Domain-Driven Design, Compilers and language design.

Experience

Systems Programmer - AI, Language Development, Cryptography, Distributed Systems (Nostr)

Feb 2026 - Present

Working on the moxie language (stripped down pure CSP Go derived language), the Smesh nostr protocol stack (relay, front end, MLS protocol), Iskra lattice language model algorithm and first applications with programming language compilation and natural language translation), and a novel Bethe Lattice based cryptosystem called Gnarl-Hamadryad. Intensive use of Claude Code and App for design and execution. Automated browser app testing using Playwright and Selenium.

Stack: Go, Moxie, Claude Code & App, Javascript, Rust

Full Stack Developer - Plebeian Market

Sep 2025 - March 2026

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 (Kind 10002), NSFW content tagging, MapLibre GL map integration, responsive image variants. Authored comprehensive Playwright e2e test suite covering auth flows, products, collections, and payments. Plebeian Signer extension ([chrome](#) and [firefox](#))

Stack: 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 RPC interface to Internet Computer canister for a distributed relay network. Engineered cross-protocol sync service: Nostr, Bluesky, and Farcaster events archived to Arweave. Designed and built real-time matchmaking engine for social platform (Shonen Network).

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

Go Developer & Technical Writer - Quanterall

Feb - Jul 2022

Authored comprehensive Go training curriculum used for developer onboarding. Designed hybrid consensus protocol (Kismet) for distributed application chains.

github.com/quanterall/kitchensink

Backend Engineer - Dusk Network

Oct - Dec 2021

Contributed to Go-based core node and Rust gRPC infrastructure for a 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 algorithm. Implemented LAN multicast UDP gossip network for low-latency work distribution. Combined node, wallet, miner, and GUI into a single multi-application binary with concurrency and configuration systems.

Independent Research

2012 - 2018

Distributed consensus (Tendermint, BFT variants), Go systems programming. First encounter with Go in 2012.

Education

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