

Nathan Huse

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Professional Summary

Full-stack engineer with a B.S. in Computer Science who ships production software end to end, from a hospital ordering platform used by 80+ night-shift staff (CafeNightClub) to a live semantic search engine over a seed catalog of roughly 1,000 varieties, ranking results by meaning with pgvector and Voyage AI (SeedSearch). Peer-nominated for the 2025 Values in Action Award after 4+ years of solo night-shift operations.

Technical Skills

Languages: JavaScript, TypeScript, Python, SQL, HTML, CSS

Frontend: React (React.js), Next.js, Astro, Tailwind CSS, DaisyUI, Server-Side Rendering (SSR), Responsive Design, Accessibility

Backend: Node.js, Python, FastAPI, PostgreSQL, Supabase, RESTful APIs, Edge Functions, Linux (Ubuntu), Caddy, systemd

AI & Search: Semantic search, vector embeddings & reranking (Voyage AI), pgvector (HNSW), MCP tool servers

Tools & Practices: Git, GitHub, CI/CD (GitHub Actions), Vitest, pytest, AI-augmented development (Claude), State Management, Database Design, Performance Optimization

Projects

CafeNightClub — Night-Shift Operations Platform (production, 80+ users)

Stack: Next.js, React, TypeScript, Tailwind CSS, Supabase, Vercel, Git

- Built and shipped a production ordering system for 80+ night-shift hospital staff with real-time tracking via Supabase Realtime WebSockets
- Role-based access control with Row-Level Security in PostgreSQL, push notifications, and automated operating hours
- Mobile-first PWA with server-side rendering, installed from phones with no app store needed

SeedSearch — Semantic Catalog Search (live at n8than.dev/seedsearch)

Stack: Python, FastAPI, PostgreSQL, pgvector, Voyage AI, MCP, Caddy

- Built two-stage semantic search over roughly 1,000 seed varieties from 3 SoCal growers: a pgvector HNSW index recalls candidates over Voyage voyage-3.5 embeddings, then rerank-2.5 re-ranks the finalists for precision
- Built a self-maintaining catalog: scrapers pull live WooCommerce and Shopify feeds, a content-hash diff re-embeds only what changed, and a weekly systemd timer keeps it current at near-zero cost
- Exposed the same engine two ways: a public FastAPI search UI and an MCP server serving the catalog as tools (search, lookup, categories) to any AI assistant

Work Experience

Food Service Partner

Jul 2021 – Mar 2026

Scripps Health - Mercy Hospital, Hillcrest

- **2025 Values in Action Award recipient**, peer-nominated across departments for service to patients and staff during night-shift operations
- Independently managed all night-shift cafeteria operations: inventory, station setup/breakdown, food preparation, and service for 50+ staff across Emergency, Respiratory, EVS, and other departments
- Identified ordering bottlenecks during solo operations and built a full-stack ordering platform, deployed into production use by hospital staff
- 18 peer recognitions over 4+ years from 15+ colleagues across departments for service quality, reliability, and positive effect on night-shift morale

Education

San Diego State University

May 2020

Bachelor of Science in Computer Science

Grossmont College

2017

Associate of Science in Mathematics / Computer Science