

Tom Voss

St. Louis, MO <https://github.com/tomvoss>

Summary

Senior software engineer specializing in full-stack JavaScript, distributed systems, and cloud infrastructure. Experienced in designing, building, and operating end-to-end platforms across applications, APIs, data pipelines, and hybrid infrastructure. Proven record of independently delivering production systems with measurable business impact.

Skills

Languages: JavaScript (Node.js), SQL, PHP, Java, C#

Frameworks & Libraries: Next.js, React, Hono, Tailwind CSS, Auth.js

Cloud & Infrastructure: AWS (EC2, RDS, S3, Lambda, API Gateway, CloudFront), Cloudflare Workers, VPC, IAM

Databases: MySQL, SQL Server, DynamoDB, SQLite

Systems: Linux, Nginx, Apache, systemd

Other: REST APIs, OAuth, SAML, Stripe, EDI (cXML, X12), distributed systems, edge computing

Experience

Voss Lighting

Senior Software Engineer (Platform / Systems) 1999 – Present

Built and operated internal platforms and systems supporting multi-location operations across applications, data, and cloud infrastructure.

- Built internal operations platform supporting daily workflows, eliminating manual processes and direct database access while improving data integrity and efficiency
- Developed modern Next.js applications, including a marketing-first website built with Next.js and Payload CMS featuring AI-assisted localized content generation

- Built pricing automation platform that standardized margin controls, replaced manual processes, and accelerated quoting
 - Designed and implemented EDI integrations (cXML, Ariba, Coupa) supporting enterprise procurement workflows
 - Designed and built internal APIs and data pipelines for system integration, data normalization, and reporting
 - Migrated Help Scout to self-hosted FreeScout without third-party tools
 - Led full infrastructure and application migration from on-prem to AWS, improving scalability, reliability, and operational flexibility
 - Designed meshed site-to-site VPN architecture connecting 16 locations to AWS, enabling secure, resilient connectivity for ~200 employees
 - Owned cloud architecture, networking, security, backups, and cost optimization across hybrid infrastructure
 - Led end-to-end recovery from catastrophic ransomware event, rebuilding core infrastructure from scratch and restoring operations within 48 hours
 - Reduced network costs by \$75,000 annually through infrastructure redesign while improving performance and reliability
 - Reduced telecom costs by \$50,000 annually through contract optimization
 - Automated internal workflows saving ~50+ hours per month across departments
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Projects

NetLoc8 (Pre-Launch)

Location intelligence platform for developers

- Architected and built full-stack platform on Cloudflare edge, including API, dashboard, operations tooling, billing, and authentication
 - Designed custom geo data pipeline combining multiple providers into compact binary shards for fast edge delivery
 - Achieved sub-50ms response times for third-party lookups through optimized data structures and edge execution
 - Published open-source Next.js SDK (@netloc8/nextjs) with server components, middleware, and client hooks for seamless integration
 - Designed extensible architecture supporting additional location-based datasets including demographics, weather, and risk signals
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WaitFor (In Progress)

Session-scoped event coordination platform for asynchronous workflows and AI agents

- Built distributed event coordination platform on Cloudflare Workers, Durable Objects, D1, and R2
 - Designed deterministic `waitFor(...)` workflow primitive for resolving asynchronous external events into structured API results
 - Implemented real-time event streaming, extraction pipelines, and session-scoped state management
 - Designed architecture for email, webhook, and human-in-the-loop operational workflows
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Open Operational State (Open Source)

Vendor-neutral standard for machine-readable operational health and status

- Designed specification, schema, and conformance model for service health and status reporting
 - Built supporting tooling including validator, CLI, and reference implementation
 - Defined interoperability approach for representing operational state across systems
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VossLighting.com AI Content System

AI-assisted localized content generation for production marketing site

- Designed and implemented AI-assisted localized content generation pipeline for marketing website built with Next.js and Payload CMS
 - Built workflow for generating market- and location-specific content at scale while maintaining structured editorial control
 - Integrated AI content generation into production publishing workflows to improve scalability and search visibility
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Education

University of Nebraska – Lincoln

Computer Engineering (coursework)