

RESUME

Nate Bowser

Senior Software Engineer, AI Automation and Visualization Systems

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I turn AI into dependable engineering leverage: shaping Codex, Claude, Cursor, retrieval, prompts, and guardrails around production codebases, backed by 20+ years of product engineering and deep JavaScript visualization work.

Core strengths

AI, visualization, product systems

- AI automation: Codex, Claude, Cursor, managed coding agents, codebase-specific prompts, retrieval-backed context, human review, quality gates, developer productivity, and team training.
- Retrieval and context systems: Markdown mirrors, llms.txt, NDJSON corpora, OpenAPI discovery, MCP/HTTP retrieval services, cited support/API corpora, and agent-readable product knowledge.
- Visualization systems: JavaScript, TypeScript, D3.js, SVG, canvas, chart engines, maps, trees, dashboard editors, browser rendering, and performance-sensitive UI.
- Product engineering: frontend, backend, build systems, deployment, AWS, SEO-focused websites, CMS workflows, data migrations, lead flow, testing, and customer-facing product behavior.

Spider Strategies

Senior product engineer · 15 years

- Long-running product engineering role focused on Spider Impact, Dash, visualization infrastructure, public websites, internal tools, CMS workflows, and AI automation.
- Worked across frontend, backend, build systems, deployment, browser performance, testing, customer-facing product behavior, technical training, and founder-close product execution.

AI automation, agents, and CMS workflows

@ **Spider Strategies** · Current focus

- Built and improved AI-assisted engineering workflows across Codex, Claude, Cursor, codebase-specific prompts, retrieval-backed context, quality gates, and automation.
- Designed agent-readable content systems including Markdown mirrors, llms.txt, NDJSON corpora, API discovery records, MCP/HTTP retrieval services, and support-content ingestion.
- Worked on Anansi, an MCP/HTTP service for agents.spiderstrategies.com with cited retrieval over website, support, and API knowledge.
- Built Weaver CMS workflows for blog, docs, images, gated assets, prompt overrides, GitHub-backed editing, and deploy flows.
- Translated AI tools into practical team usage: context setup, prompt design, verifiable outputs, agent guardrails, and clear rules that reduce noise instead of creating tech debt.

Spider Impact visualization platform

@ Spider Strategies ·

JavaScript, D3, SVG, canvas

- Built and maintained the visualization and dashboard-editing platform behind Spider Impact.
- Worked on data stories, chart engines, earned value forecasting, clustering explainers, SVG shapes, D3 maps, and a 10+ year dashboard canvas for composing and presenting dashboard objects.
- Built Keynote-like browser editing behavior: selection, marquee, snap lines, autoscroll, history stacks, RTL support, Bezier connectors, shape handles, labels, and object manipulation.
- Built reusable charting and visualization components across bar, line/area, pie, polar, treemap, map, timeline, funnel, process, pyramid, regression, waffle, and wafflegrid views.
- Built Kalpa Tree, a high-performance hierarchical D3 tree used as core Spider Impact navigation infrastructure for large browser datasets, streaming nodes, selection, drag/drop reparenting, and 50K+ node demos.
- Worked deeply on browser performance, animation, label layout, text measurement, export behavior, dashboard rendering constraints, and long-lived component APIs.

Web, cloud, and product infrastructure

@ Spider Strategies ·

AWS, SEO, CMS, lead flow

- Helped build the Spider Strategies website stack: static site generation, SEO-oriented content systems, gated content, OpenAPI publishing, agent corpus generation, and production deploy tooling.
- Worked with AWS S3, CloudFront, CloudFront Functions, response header policies, Route 53/DNS coordination, staging/production deployment paths, and cache invalidation workflows.
- Built sales lead flow and contact infrastructure connecting marketing pages to follow-up workflows without turning the site into a brittle application.
- Built public interactive explainers for business intelligence, data clustering, earned value management, forecasting, and dashboard concepts.

Dash

@ Spider Strategies ·

Founder-close product and platform engineering

- Worked directly with the founder on Dash, an internal company spinoff whose technology and lessons later fed back into the main product.
- Built dashboard app features, widget frameworks, chart widgets, gauges, goal widgets, free-form canvas composition, realtime push services, integrations, OAuth flows, image proxying, thumbnail generation, sitemaps, queues, and deployment tooling.

Field Expert

Senior consultant and corporate trainer · May 2007 to 2011

Boutique technical training firm · JEE, Spring, Hibernate consulting and corporate seminars

- Delivered corporate software-development seminars for enterprise audiences including Boeing, the IRS, FedEx, Wells Fargo, and Morgan Stanley.
- Taught and mentored developers on Java/JEE, Spring, Hibernate/JPA, application design, and best-practice coding.
- Served as lead instructor and mentor for a Java immersion initiative at a 100,000+ employee corporation.
- Built custom business software, including safety tracking, warranty management, supply-chain management, and database-driven web applications.
- Wrote technical exercises and training material grounded in real consulting work rather than academic examples.