

Tom Duffield

Staff / Founding Engineer - I own products end to end and build the tooling that ships them faster

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Engineer and builder with 15+ years shipping systems end to end - from an AI consumer-health product built solo to production, to org-wide CI/CD platforms that turned monthly releases into daily across entire engineering teams. Deep across the stack and the cloud beneath it. Takes the hardest, most ambiguous problems to production and builds the platforms and tooling that make whole teams faster.

Core: Elixir, TypeScript/React, Go, Python, Ruby · **Cloud/Infra:** AWS (CDK), Kubernetes, Docker, Terraform, PostgreSQL · **Delivery:** CI/CD, GitOps, release engineering · **AI:** LLM application development, MCP, agent-native tooling

EXPERIENCE

Zenith Health - Founding Engineer

Apr 2024 - Jun 2026

- Built Penny, an AI pregnancy-evidence navigator, from scratch on a streaming LLM pipeline (OpenAI): 15,000+ questions answered for 5,200+ users, with monthly active users growing roughly 15x in the first year.
- Sole engineer for 16 months, owning the entire product end to end - a Phoenix/Elixir backend, a LiveView web app, and the AWS (CDK) infrastructure beneath it - shipping to production daily (1,000+ merged PRs, 84% in under an hour).
- Built Trailhead, an open-source agent-native development suite (project memory, multi-repo worktrees, and test-driven subagent workflows) that let one engineer move like a team. Stood up observability and analytics on PostHog and Dash0.

Datavant - Technical Lead

Jul 2022 - May 2023

- Architected a Python processing framework (request validation, OCR conversion, NLP-based QA) that became the team's standard pipeline over millions of regulated patient records, while leading up to six engineers as a hands-on IC.
- Took production deployments from monthly to daily, and incident detection and resolution from weeks to hours, with TDD, feature flags, and end-to-end observability.

CircleCI - Sr. Staff Software Engineer (Security Architect)

Nov 2021 - Apr 2022

- Designed and shipped a configuration-policy DSL that let customers codify and enforce security guardrails across their CI/CD pipelines; architected secure, multi-tenant Kubernetes patterns on AWS.

Chef Software - Sr. Principal Software Engineer (Release Engineering Tech Lead)

2013 - 2021

- Built Expeditor, a Ruby "release-process-as-code" engine adopted across every repository Chef owned and used by technical and non-technical teams alike. It still runs across all of them today, years later and through the company's acquisition by Progress.
- Set canary, blue/green, and GitOps continuous delivery as company-wide standards; migrated business-critical applications to a multi-region Kubernetes platform, reducing spend and improving resilience. Led a globally distributed release-engineering team.

Earlier: Independent DevOps consultant for Cetera Financial Group (2023 - 2024); Consultant at Accenture (2011 - 2013) - led big-data analytics for a Fortune 100 retailer, and, fresh out of college, taught myself PowerShell to cut a Fortune 100 SAP upgrade's downtime by roughly 80%.

EDUCATION

B.S. Computer Science, University of Wisconsin - Madison