

MATHEW DOSTAL

Fractional CTO & Principal Architect | Agentic AI · Fintech · Enterprise Scale

Austin, TX | 903-343-9327 | dostalmathew@gmail.com

Portfolio: mdostal.com | LinkedIn: linkedin.com/in/mdostal

EXECUTIVE SUMMARY

Fractional CTO and principal architect — 15+ years across 35+ companies, from **Fortune 500 enterprise (Hertz, Wayfair, Costco, Chick-fil-A)** to founder/CTO of my own ventures. I pair **hands-on agentic AI** with the enterprise-scale architecture and technical-presales judgment that wins and de-risks deals — **the capital-efficient alternative to a \$250K+ full-time hire.**

I build agentic AI hands-on: a **35-agent orchestration system** backed by a **RAG knowledge layer**, plus edge-AI computer vision in production. Known for "**hard tech**" — translating real-world constraints (connectivity, hardware limits, regulation) into systems that ship.

CORE COMPETENCIES:

Strategic Leadership	Technical Architecture	Specialized Domains
Fractional & Interim CTO	Agentic AI & Knowledge Systems (orchestration/swarms, RAG)	Edge AI: Raspberry Pi, Computer Vision, RTSP/Video
Tech Strategy & Governance	Cloud-Native (AWS/Azure/GCP)	Fintech (Stripe Connect, Escrow)
Technical Presales & Solution Architecture (SOWs, estimation, demos)	Event-Driven Microservices	E-Commerce (IBM WebSphere, Shopify)
Digital Transformation	Native Mobile (KMP/Swift)	AgTech & Offline-First / IoT
Budget & P&L Oversight	Full-Stack (Next.js/Node/Python)	Data (Polyglot, Caching, Eventual Consistency)

PROFESSIONAL EXPERIENCE

DOSTAL TECHNOLOGY LLC | *Fractional CTO & Founder*

Fractional CTO Practice | Remote | April 2026 – Present

Independent fractional-CTO practice: technical strategy, architecture, agentic-AI systems, and growth engineering for founders and growth-stage teams.

- **All That Technology** (Fractional CTO): embedded with a growing home-technology company — rebuilt the Shopify storefront, instrumented analytics/attribution (PostHog, Meta Pixel), and delivered **15+ growth-strategy documents** plus a cost audit, building the digital foundation and measurement to scale.
- Built the **agentic-AI + RAG** infrastructure (35-agent orchestration, vector-store knowledge layer) now used across my own ventures.

FRONTIERS MARKET | *Head of Engineering & Principal Architect*

AgTech & Livestock Management Platform | Remote | Jan 2025 – April 2026

Sole technical authority across hardware, mobile, and cloud for an AI-driven platform digitizing the cattle industry.

- **Agentic Operating Model:** Architected and deployed **full agent swarms with multi-level orchestrators** acting on minimized context — automating complex decision pathways without human-in-the-loop bottlenecks.
- **Edge AI:** Engineered a **local-first NVR on Raspberry Pi clusters** processing RTSP video on-device to cut cloud dependency and bandwidth, maintaining real-time monitoring in low-connectivity environments.
- **Fintech / Escrow:** Designed and built a **Stripe Connect auction payment rail** (separate charges & transfers, funds held in escrow until delivery verification) with a full audit ledger — built, not yet live in production.
- **Native Mobile + On-Device CV:** Built a native Swift app with **on-device computer vision** for vision-based cattle weight estimation (~96% in controlled tests), offline-capable via store-and-forward sync.
- **Marketplace:** Built the **registry and management platform** (PostgreSQL for transactional integrity, Redis for high-frequency lookups).

FIREFLY EVENTS | *Founder & Chief Technology Officer*

EventTech Ecosystem & Venture Studio | Austin, TX | Sept 2023 – Present

Bootstrapped and launched event products — Shindig, Reserved, and Tabletop Archive — all live, with adoption still early.

Shindig aggregates 8,000+ daily events.

- **Agentic Swarm Orchestration:** Architected **autonomous agent swarms** for cross-repository automation and third-party integrations (Stripe, Shippo, Maps), with a RAG knowledge layer for durable cross-session memory.
- **Shindig (Kotlin Multiplatform):** native iOS/Android event aggregator pulling Ticketmaster, Eventbrite, and Facebook into one geo-spatial feed.
- **Reserved** (Next.js/MongoDB): venue-management SaaS with a **dynamic rules engine** for compliance (e.g., NYC "block laws"). Built; pre-adoption(not yet processing rentals).
- **Tabletop Archive** (Convex/Next.js): P2P rental marketplace with **Stripe escrow**, Shippo verification, and state-machine inventory. Built; pre-launch.
- **Flayr** (flayr.social): **AI-driven B2B content engine** — automated creation, scheduling, and cross-posting across social accounts. In active internal use (dogfooding) and launching.

WAYFAIR | *Senior Software Engineer (Supply Chain Tech)*

Global E-Commerce Giant | Austin, TX | May 2022 – Jan 2025

Led critical initiatives within the supply chain technology group, driving operational efficiency for a global e-commerce giant.

- **Supply-chain initiatives:** Led and shipped event-driven fixes for supply-chain data failures driving lost and disappearing product in returns and inventory reconciliation — several self-originated. The business credited the broader effort with **~\$5M in reduced lost-inventory cost**; one of several contributing initiatives.
- **Cross-Functional:** Technical mentor for junior engineers; collaborated across Product and Data Science to standardize API documentation and microservice deployment. Stack: Python, FastAPI, C#/.NET, React, Kafka, observability, Docker/Kubernetes.

EY (ERNST & YOUNG) | ZILKER TECHNOLOGY | Senior Solution Architect & Manager

Enterprise Technology Consulting | Austin, TX | Feb 2015 – April 2022

Technical authority for a consultancy that grew from 13 to 500+ people before its EY acquisition. Owned the technical side of enterprise pursuits and led delivery for Fortune 500 clients.

- **Technical Presales & Solution Architecture:** Owned the deal cycle's technical side end to end — SOWs, change requests, estimation, solution design, and **the demos that won or lost contracts**. The architect dropped into accounts to answer for the solution in front of client CTOs and enterprise architects.
- **Chick-fil-A (\$20M):** Architected an **offline-first POS modernization** (Ditto device-to-device sync) built to keep locations taking orders through connectivity drops. Engagement was underway — targeted outcomes, not finished results.
- **Hertz (Performance):** Re-architected the global rate engine — **6,000% throughput gain, >3,000 requests/sec at p95 ~30ms** — using Cloudant (NoSQL) and Redis caching to replace legacy monoliths.
- **Costco (Enterprise E-Commerce):** Built the mobile commerce experience (mobile web + cross-compiled app on **IBM WebSphere Commerce**) for a **\$200B+ revenue retailer**.
- **Enterprise IoT:** Led IoT initiatives on **ClearBlade** middleware, bridging industrial hardware protocols to cloud dashboards.
- **DaVita (Performance):** Performance lead across an ecosystem of **100+ microservices for dialysis and critical-care systems** — where downtime isn't an option. Established SLA benchmarks and a performance-testing culture, and architected for resilience and failover so care continues through failures.

BEST RING POS | Chief Software Engineer (CTO Scope)

Event Fintech Startup | Austin, TX | 2017

- **Offline-First Payments:** Architected a **local-first data sync protocol** built to keep POS processing through internet outages at large-scale festivals, holding up through peak transaction volume.
- **Fraud Prevention:** Real-time fraud checks even in offline-first scenarios, surfacing prevention metrics to disable compromised cards festival-wide.

EARLIER EXPERIENCE

8+ additional years in IBM eCommerce (WebSphere Commerce), mobile & DevOps architecture, and enterprise integration — across Ascendant Technology, REI Systems, and others. Full history available on request.

EDUCATION

B.S. Computer Science, Neumont University (2009)