

Kyle Dieruf

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SUMMARY

Senior Engineering Manager with 10+ years of software engineering experience, including significant technical leadership across architecture, platform engineering, and AI. At Cars.com, I lead the Marketplace Search and AI organization, owning the core search experience, dealer products, and Carson, the company's first AI-powered search product recognized with a 2026 AI Excellence Award. In 2026, scope expands to formally lead both Search and a dedicated AI Engineering team. Currently operating at Director scope across product delivery, cross-functional AI enablement, and organizational strategy.

CORE SKILLS

AI and Agentic Systems: Intent Engineering, MCP Architecture, Agentic Orchestration, Multi-Agent Systems, LLM Integration, GenAI Orchestration, LangChain, Bedrock

Engineering Leadership: Team Scaling, Cross-Functional Alignment, Influence-Based Leadership, Performance Management, OKR-Based PDLC Governance

Cloud and Platform: AWS (EC2, AgentCore, Bedrock, S3, CloudFront, SES, Secrets Manager, SSM), Cloudflare, Terraform / OpenTofu, CI/CD, GitHub Actions

API and Integration: GraphQL (Apollo Client/Server), REST, Streaming APIs, SDUI

Expert Fluency: Python, Elixir, Node.js, TypeScript/React, Next.js, Swift/SwiftUI, Android/Jetpack Compose, Relational Databases

Search and Data Platforms: OpenSearch / Elasticsearch (search architecture, relevance tuning, performance optimization)

Observability and Analytics: DataDog (LLM observability, APM), RudderStack (event pipeline), Amplitude, Iterable

EXPERIENCE

Cars.com Remote | May 2018 – Present

Senior Software Engineering Manager Mar 2025 – Present

- Led delivery of Carson, Cars.com's AI-powered search product recognized with a 2026 AI Excellence Award, serving 6-8M unique users per month with 25-30% adoption among web searchers. Carson users convert at meaningfully higher rates across the SRP-to-VDP and VDP-to-Lead funnel, with Carson generating roughly 20-25% of all web leads. Delivered by a 7-person cross-functional team of 4 engineers and 3 data scientists.
- Pioneered the practice of Intent Engineering, an agentic-first approach to organizational AI enablement. By grounding AI agents in live company OKRs, architecture context, and domain knowledge, the approach enables agents to make product-aware decisions without human handholding. Adopted across multiple teams.
- Built Cars.com's enterprise ChatGPT integration, establishing the company's first public-facing MCP server. Leveraged Intent Engineering to deliver at engineering depth and pace without dedicated engineering resources, managing full project delivery from stakeholder coordination through AgentCore infrastructure standup.
- Drove the formation of a cross-functional AI Engineering team, merging application engineers with Data Science to eliminate organizational silos. Coached Data Science leadership through influence to adopt a rapid, iterative delivery model alongside engineering.
- Resolved production incidents end-to-end without pulling the team in reactively, using Intent Engineering to assess DataDog telemetry and diagnose issues across multiple codebases, delivering engineer-reviewed solutions directly.
- Authored the Carson Roadmap and Strategy, a 5-phase AI investment plan establishing the department's technical direction and competitive positioning against CarGurus, Amazon, and Google Shopping. Referenced by product and engineering leadership for prioritization decisions.
- Conducted the Vector DB vs. API-Orchestrated GenAI strategic analysis that determined Cars.com's hybrid AI architecture, demonstrating why vector-only approaches break the ecommerce contract and positioning the company against Amazon, Google Shopping, and CarGurus Discover.

- Led the end-to-end rebuild of the Search Results Page using SDUI architecture across web, iOS, and Android, delivering 14x LCP improvement (24s to 1.67s at p95), 3x FCP improvement (4.3s to 1.28s), and 4.5x DOM Time to Interactive improvement vs. the legacy platform.
- Authored a 5-phase SEO Execution Plan transforming SEO from weeks of bespoke engineering per search pattern to hours of self-service configuration, enabling the SEO team to operate independently of engineering cycles.
- Achieved 100% positive feedback from all 10 direct reports in the company engagement survey, with all project commitments met and the team operating autonomously through a 10-week manager absence.
- Navigated significant organizational complexity alongside product delivery, rescuing a stalled cross-team project to MVP, coaching the owning EM to full ownership, and managing a senior-level personnel transition with zero impact on delivery commitments.

Software Engineering Manager *Dec 2022 – Apr 2025*

- Grew the mobile and API team from 4 to 16 full-time engineers, including a dedicated Product Manager and an additional Engineering Manager.
- Defined the technical vision for native mobile driving adoption of SwiftUI (iOS) and Jetpack Compose (Android), established a decentralized pod structure, and built the SDUI architecture now powering Cars.com's multi-platform delivery strategy.

Senior Software Engineer II / Senior Software Engineer I / iOS Engineer *May 2018 – Dec 2022*

- Full-stack from day one at Cars.com, led the AWS migration of the web service ecosystem in year one, then served as Lead iOS Engineer and Lead GraphQL Developer on a major greenfield platform overhaul, establishing a new API ecosystem and modern iOS application end-to-end.

Humana *Louisville, KY | May 2014 – May 2018*

Application Architect / Consultant / Engineer *May 2014 – May 2018*

- Progressed from intern to architect in four years, leading the full rebuild of the Humana Pharmacy mobile app and migrating the entire mobile API ecosystem to Cloud Foundry microservices. Delivered Android and iOS clients across three additional solutions using TDD in paired-programming teams.

EDUCATION

Purdue University *Computer Information and Technology, Information Systems | Graduated May 2016*