

Derek Provance

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Professional Summary

Software Architect with **11+ years** building **enterprise-scale systems** for **SaaS** and **healthcare** sectors. Expert in **cloud-native architectures**, **AI-assisted development**, and leading **cross-functional teams** through complex migrations. Proven track record of accelerating delivery by **40-75%** while maintaining **zero-downtime operations**.

Technical Skills

- **Architecture & Design:** Serverless Architecture, API Design, Database Design, System Integration, Event-Driven Architecture, Distributed Systems
- **Cloud & Infrastructure:** AWS (Lambda, API Gateway, DynamoDB, S3, EC2, ECS, CloudFormation), Docker, Kubernetes, CI/CD Pipelines, Terraform, GitHub Actions
- **Programming:** TypeScript, JavaScript, Node.js, Java, SQL, Nest.JS, Spring Boot, Temporal.io
- **Databases & Data:** DynamoDB, MySQL, PostgreSQL, MongoDB, Redis, Elasticsearch, Database Migration, Data Modeling, ETL Pipelines
- **Leadership & Methods:** Technical Leadership, Team Mentoring, Cross-functional Collaboration, Agile/Scrum, GitHub Flow, SDLC, Technical Documentation
- **AI Development Tools:** Claude.AI, Claude Code, Cursor, AI-Assisted Development, Code Generation, Architecture Planning

Professional Experience

Software Architect

Formstack

Remote

Mar 2025 - Present

- Delivered enterprise **HIPAA-compliant** healthcare workflow platform, architecting scalable solution using **Node.js/TypeScript**, **Temporal.io**, and **Redis** with **AI-assisted development**
- Accelerated enterprise platform delivery by 40% through 8-person team leadership and cross-functional coordination, completing a workflow solution in 3 months across multiple microservice teams
- Designed workflow architecture with **SQL schema** and definition system translating visual maps into executable **Temporal.io** workflows
- Implemented **Redis**-based transient storage solution, eliminating persistent record storage while maintaining full functionality
- Established daily war rooms and rapid feedback cycles, transforming siloed development into coordinated team execution
- Launched production workflow with 8 design partners and achieved successful beta-to-release transition, implementing critical **EHR integration** for healthcare data exchange

Principal Engineer

Formstack

Remote

Jan 2022 - Mar 2025

- Architected **zero-downtime migration** of 1.5M records from **DynamoDB** to **Aurora DB** using **dual-write pattern**, improving performance 47% and reducing errors 70%
- Accelerated delivery 50% by migrating from **DynamoDB** to **Aurora DB**, eliminating 800 lines of custom join logic and enabling native **SQL** development while leading 5-engineer team modernization of Workflows platform

- Transformed **SDLC** with **GitHub Flow CI/CD** and **feature flags**, scaling from bi-monthly to daily deployments while reducing incidents 92%
- Transformed product stability from least to most stable in company portfolio through comprehensive team mentoring on **SQL** technologies and engineering best practices
- Improved customer retention by eliminating data loss issues and partnering with stakeholders to balance infrastructure costs with dramatic quality improvements
- Reduced **MTTR** from hours to seconds through automated **feature flag rollbacks** and enhanced **observability**, establishing deployment process as company "gold standard"

Senior Software Developer

Formstack

Remote

Jul 2020 - Jan 2022

- Engineered custom **Lambda** solution for critical **document signing service**, preserving functionality for 1,500+ daily documents and preventing enterprise revenue loss
- Improved system performance by 30-50% and reduced critical **database retrieval** from 90+ to 20 seconds through strategic legacy codebase optimization via **algorithm refinements** and **TypeScript** conversion
- Implemented **AWS Step Functions** for **workflow orchestration**, creating transparent data visualization while maintaining **HIPAA compliance** for medical documents
- Eliminated deployment outages and increased release frequency by leading 4-person Sign team transition from bi-monthly deployments to **zero-downtime** releases using **feature flags**
- Rescued million-dollar client relationship by debugging complex **SOAP API** integration with **Epic healthcare system**

Java Backend Developer

Adknowledge

Kansas City, MO

Apr 2016 - Jan 2019

- Developed high-volume **ETL pipeline** for **push notification service** processing 1-2 million simultaneous notifications, implementing **caching strategies** to optimize **MySQL** performance
- Established **DevOps infrastructure** with **Docker**, **Docker-Compose**, and **CI/CD pipelines** using **Jenkins**, increasing developer efficiency and deployment reliability
- Created **API integration services** for external data providers with fault tolerance strategies, rate limit management, and **Facebook Ads API** integration
- Managed **AWS infrastructure** including **EC2** and **Elastic Beanstalk** deployments, ensuring scalability for high-traffic production systems

Ruby Software Developer

Red Nova Labs

Kansas City, KS

Apr 2015 - Apr 2016

- Developed large-scale **Ruby on Rails** storage management application, implementing **RESTful APIs** and **MVC architecture** patterns
- Implemented **test-driven development** methodologies while creating efficient data models with **PostgreSQL** and **ActiveRecord** ORM

Java Backend Developer

Assurant Employee Benefits

Kansas City, MO

Apr 2014 - Mar 2015

- Developed **enterprise-level Java applications** for employee benefits management using **Java 8**, **Spring Boot**, and **Hibernate ORM**
- Contributed to **Java migration** project from Java 1.6 to Java 8, improving system performance and enabling modern development practices
- Collaborated effectively within a team of 15 engineers following **Agile methodologies** to deliver critical business features

Education

University of Missouri

BS in Computer Science, College of Engineering, 2014