

Keith Steward, Ph.D.

AI Engineering Leader | Agentic Systems Builder

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[LinkedIn](#) | IntelligentDataWorks.ai | [IDW LinkedIn](#)

PROFILE

Hands-on AI engineering leader who turns operational bottlenecks into production agentic systems and measurable workflow gains. Combines Python, APIs, RAG, vector search, LangChain, LangGraph, MCP, cloud infrastructure, and disciplined software delivery with player-coach leadership. Built an 11-engineer team and a platform supporting 70+ AI automations across more than 20 workflows, accelerating selected work by up to 50x. Brings the technical judgment to scope, code, harden, deploy, and transfer maintainable AI systems while developing a small high-output engineering pod in complex, regulated, cross-functional environments.

SELECTED QUALIFICATIONS

- **Agentic System Delivery:** production code, RAG, vector search, orchestration, agents, MCP, evaluation, testing, deployment, operations, maintainable handoff, and operational ownership
- **Workflow Transformation:** discovery, process mapping, stakeholder interviews, process constraints, automation roadmaps, prioritization, adoption metrics, and quantified throughput gains
- **Player-Coach Leadership:** recruiting, mentoring, engineer onboarding, code and architecture guidance, technical documentation, cross-functional communication, Agile delivery, quality standards, and hands-on execution
- **Production Foundations:** Python, FastAPI, PostgreSQL/PGVector, APIs, AWS, CDK, CI/CD, security, governance, cost controls, performance monitoring, observability, and scalable SaaS architecture

PROFESSIONAL EXPERIENCE

Technical Co-Founder & CEO | Intelligent DataWorks | Boston, MA | Aug 2023 to Present

Lead product architecture, engineering execution, and operations for an applied AI SaaS company while remaining hands-on in platform development.

- Architected and helped build AssistX, a production AI platform combining Python, FastAPI, PostgreSQL/PGVector, LLMs, RAG, AI agents, APIs, LangChain, LangGraph, workflow orchestration, and AWS cloud services.
- Delivered the first commercial release within eight months, supporting 70+ AI automations across more than 20 HR and business workflows and accelerating selected work by up to 50x.
- Recruited and technically led an 11-engineer Agile team while contributing directly to backend services, cloud infrastructure, orchestration, evaluation, security controls, observability, and production operations.
- Implemented voice-driven interaction, MCP and multi-agent capabilities, controlled prompts, input validation, prompt-injection protection, vector search, human review, and reusable agent foundations.
- Initiated strategic acquisition discussions regarding IDW's AI platform as part of a planned transition to a senior AI/engineering leadership role.

Senior Director of Engineering | SuccessKPI | Remote | Jun 2022 to Aug 2023

Directed engineering and architecture for an AI-powered Workforce Management SaaS product while translating operational requirements into production systems.

- Recruited and led a seven-person distributed engineering team delivering forecasting, optimization, scheduling, analytics, and automated communications for large contact-center operations.
- Translated product requirements into AWS architecture, algorithms, data flows, APIs, work breakdown, testing, automated deployment, CI/CD, and two-week Agile releases.
- Delivered the first working release within six months for two flagship customers and expanded the platform to additional large organizations while maintaining production quality.
- Built forecasting and linear-programming workflows that converted complex staffing constraints into maintainable operational schedules and decision support.

Senior Director, Data Analytics & Operations | TriMark USA | Mansfield, MA | Aug 2021 to May 2022

Owned enterprise data modernization for a \$1B+ organization integrating 11 acquired businesses and heterogeneous ERP environments.

- Prioritized 50+ analytics and automation use cases with cross-functional stakeholders.
- Upskilled four analysts and grew the group to seven AWS engineers with hiring, mentoring, budget, risk, and delivery accountability.
- Delivered the company's first AWS data lake within seven months, automating nightly ingest and normalization and reducing cross-ERP reporting from roughly two months to one day.

Technical Lead, Cloud Data Privacy & AI Governance | MassMutual | Boston, MA | Nov 2020 to Aug 2021

Led architecture and hands-on implementation across five enterprise Data Privacy and AI Governance initiatives.

- Converted policy requirements into secure cloud architecture, APIs, automated infrastructure, testing, CI/CD, and production releases.
- Delivered the first cloud-native privacy-rights platform within eight months, automating approximately 90% of a formerly manual workflow.
- Guided model-governance practices for evaluation, transparency, bias, drift, monitoring, auditability, lifecycle controls, security, and human oversight.

VP of AI/ML | NorthBay Solutions | Boston, MA | Jan 2019 to Nov 2020 | Role ended in company-wide COVID layoff.

Recruited out of AWS by the NorthBay Solutions CEO to establish a new AI/ML practice and reusable production data-and-ML capability.

- Built an AWS Data Lake and ML accelerator hands-on with Python, Django, React, APIs, and AWS, then directed a 24-person remote team toward delivery.
- Turned customer and product requirements into architecture, ML capabilities, demonstrations, and production plans.

Senior Specialist Solutions Architect, AI/ML & Big Data | Amazon Web Services | Boston, MA | May 2015 to Dec 2018

Advised enterprises and AWS technical teams on production machine learning, distributed analytics, data platforms, and cloud adoption.

- Advised 200+ enterprise customers on AI/ML strategy, production architecture, SageMaker, data lakes, APIs, security, and scalable cloud adoption.
- Led global Big Data and AI/ML communities, developing 180+ specialists through standards, mentoring, workshops, and reusable assets.
- Translated ambiguous problems into practical architectures and delivered 50+ workshops for technical and nontechnical audiences.

EARLIER RELEVANT EXPERIENCE

- Led delivery of an FDA-cleared digital-dentistry system and built much of its fault-tolerant AWS/Cassandra platform hands-on.
- Led a 25-person CambridgeSoft team delivering scientific SaaS for pharmaceutical customers.
- Ph.D. molecular biologist and early developer of the widely adopted Ingenuity Pathway Analysis product.

EDUCATION & RECOGNITION

Ph.D., Molecular Biology / Microbiology & Immunology, University of Western Ontario. AWS ML Elite Gold and Platinum; AWS re:Invent Rockstar; named inventor on multiple patents.

TECHNOLOGIES

Agentic AI • RAG • vector databases • LangChain • LangGraph • voice interaction • Model Context Protocol (MCP) • multi-agent systems • Python • FastAPI • REST APIs • PostgreSQL • PGVector • LLMs • OpenAI • Anthropic Claude • AWS Bedrock AgentCore • workflow orchestration • process automation • system design • software development life cycle • testing • CI/CD • AWS CDK • Docker • Kubernetes • AWS • security • AI governance • evaluation • requirements analysis • technical mentoring • stakeholder discovery