

Keith Steward, Ph.D.

Enterprise AI Engineering Leader | GenAI Platform & Governance Architect

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

PROFILE

Hands-on enterprise AI engineering leader who turns regulated business priorities into secure, supportable production systems. Combines Generative AI, LLMs, RAG, agentic workflows, cloud-native APIs, MLOps, LLMOps, observability, governance, and vendor delivery with direct team leadership. Architected AssistX, supporting 70+ automations across 20+ workflows, and delivered its first production release in eight months. Brings medical-technology and life-science experience plus the operating discipline to establish engineering standards, mature AI capability, and deliver measurable enterprise value.

SELECTED QUALIFICATIONS

- **Enterprise AI Architecture:** use-case evaluation, reference architectures, design patterns, APIs, integration, scalable platforms, and production delivery
- **GenAI Engineering:** LLMs, RAG, AI agents, agentic workflows, intelligent assistants, automation, evaluation, and human oversight
- **AI Operations & Governance:** MLOps, LLMOps, monitoring, observability, lifecycle controls, privacy, security, Responsible AI, and auditability
- **Technical Leadership:** engineering standards, roadmaps, mentoring, vendor oversight, offshore delivery, cost controls, and cross-functional execution

PROFESSIONAL EXPERIENCE

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

Lead AI product architecture, engineering execution, and operations while remaining hands-on in production platform development.

- Architected and helped build AssistX, a production GenAI platform combining LLMs, RAG, AI agents, LangChain, LangGraph, Python, FastAPI, PostgreSQL/PGVector, APIs, workflow orchestration, and AWS services.
- Delivered the first production release within eight months, supporting 70+ AI automations across more than 20 workflows and accelerating selected work by up to 50x.
- Recruited and technically led an 11-engineer Agile team while contributing directly to architecture, backend services, cloud infrastructure, orchestration, evaluation, security, and operations.
- Established reusable controls for prompt safety, input validation, human review, data isolation, observability, model selection, LLM cost management, and multi-tenant delivery.
- 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 architecture and production delivery for an AWS-based enterprise workforce-management SaaS platform.

- Built and led a distributed seven-person engineering team delivering forecasting, optimization, scheduling, analytics, and automated communications integrated with major contact-center platforms.
- Translated detailed requirements into cloud architecture, algorithms, Python services, APIs, work breakdown, testing, CI/CD, quality controls, and iterative releases.
- Delivered the first production release within six months and onboarded enterprise customers while maintaining operational reliability and release discipline.

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

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

- Defined an AWS data strategy and roadmap with Finance, Marketing, Supply Chain, and technology leaders across more than 50 prioritized use cases.
- Upskilled a four-person analytics group and grew it into a seven-member AWS engineering and analytics team with planning, hiring, mentoring, budget, risk, and delivery accountability.
- Delivered the company's first AWS data lake within seven months and reduced 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

Established secure cloud architecture and hands-on engineering across five enterprise privacy and AI-governance initiatives.

- Led architecture and implementation for privacy rights, enterprise metadata, governance APIs, and policy automation using secure cloud-native patterns.
- Advised AI Governance & Ethics on MLOps, model inventory, transparency, bias, drift, monitoring, human oversight, auditability, and SageMaker-based lifecycle controls.
- Delivered the first cloud-native privacy-rights platform within eight months, automating approximately 90% of a formerly manual regulated workflow.

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 cloud delivery capability.

- Proposed an AWS Data Lake and ML accelerator, built the initial full-stack platform hands-on, and directed a distributed 24-person team toward demonstrations and commercial delivery.
- Oversaw enterprise AI, data-lake, knowledge-graph, and cloud projects while coordinating customers, engineers, offshore teams, and delivery partners.
- Built Dun & Bradstreet's first AWS Neptune knowledge graph to integrate hierarchical Kmart and Sears business data.

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

Advised enterprises and AWS technical communities on production AI/ML, data platforms, architecture, security, and adoption.

- Advised 200+ enterprise customers across healthcare, pharmaceuticals, manufacturing, financial services, and technology on AI/ML, data lakes, distributed analytics, and cloud architecture.
- Founded and led global AI/ML and Big Data technical communities, growing the AI/ML community to 80+ specialists through standards, mentoring, workshops, and reusable assets.
- Created 170+ enablement assets, trained 180+ solution architects, contributed to AWS certification exams, and delivered 50+ technical presentations and workshops.

SELECTED LIFE SCIENCES & HEALTH TECHNOLOGY EXPERIENCE

- At Dimensional Photonics, led delivery of FDA-cleared, HIPAA-governed connected dental technology and architected its fault-tolerant AWS cloud platform through commercial launch.
- At CambridgeSoft, directed a 25-person international team delivering cloud laboratory software for Sanofi and Merck plus multi-tenant scientific SaaS capabilities.
- At Ingenuity Systems, helped create Ingenuity Pathway Analysis, a globally adopted commercial bioinformatics platform for biological pathway and molecular-network analysis.

EDUCATION & RECOGNITION

Ph.D., Molecular Biology / Microbiology & Immunology, University of Western Ontario. Canadian Medical Research Council Post-Doctoral Research Fellowship; AWS ML Elite Gold and Platinum; named inventor on multiple patents.

TECHNOLOGIES

Generative AI • LLMs • RAG • AI agents • agentic workflows • intelligent assistants • MLOps • LLMOps • model lifecycle • evaluation • monitoring • observability • AI governance • Responsible AI • auditability • data privacy • security • cost controls • AWS • AWS Bedrock • AWS SageMaker • Anthropic Claude • Python • FastAPI • REST APIs • microservices • enterprise integration • PostgreSQL • PGVector • vector databases • LangChain • LangGraph • Docker • Kubernetes • CI/CD • Git • Kafka • EventBridge • API Gateway • data platforms • data lakes • knowledge graphs • AWS Neptune • HIPAA • FDA-regulated software