

Keith Steward, Ph.D.

Director, Enterprise AI Platforms | AI Engineering Leader

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PROFILE

Enterprise AI platform and engineering leader who turns strategy into governed, reusable capabilities that product teams can adopt safely. Architected the reusable AssistX foundation and led delivery of a production generative AI platform supporting 70+ capabilities across more than 20 workflows with 99.9% availability. Combines agent orchestration, model and prompt lifecycle management, MCP and API enablement, evaluation, observability, cloud architecture, responsible AI, and people leadership. Brings practical judgment across platform roadmaps, operating models, security guardrails, cost controls, adoption, and measurable enterprise value.

AREAS OF EXPERTISE

Enterprise AI Platforms: capability roadmaps · reusable services · governed self-service · platform operations

Agentic AI: agent orchestration · MCP and API gateways · RAG · model and prompt lifecycle

Responsible AI: evaluation · observability · auditability · privacy and security guardrails

Engineering Leadership: team building · architecture direction · delivery standards · operational reliability

Enterprise Adoption: executive communication · reference patterns · enablement · cost and risk decisions

SELECTED CAREER HIGHLIGHTS

- Delivered the initial production AssistX platform in approximately eight months while balancing rapid delivery with enterprise-grade scalability, security, maintainability, and operational excellence.
- Advised more than 200 AWS enterprise customers on AI/ML, data, analytics, cloud adoption, and production architecture; earned AWS ML Elite Gold and Platinum recognition.
- Founded and led AWS technical communities that prepared 180+ global Solution Architects and produced 170+ enablement assets for emerging data and AI services.
- Delivered TriMark's first AWS data lake across 11 divisional ERP systems, reducing cross-enterprise reporting from roughly two months to one day.
- Delivered MassMutual's first cloud-native privacy-rights platform in eight months, automating approximately 90% of a formerly manual regulated workflow.

PROFESSIONAL EXPERIENCE

Technical Co-Founder & CEO | *Intelligent DataWorks* | Aug 2023 to Oct 2026

Owned company strategy, product direction, architecture, engineering, hiring, budget, delivery, and platform operations for a reusable enterprise generative AI platform and HR assistant.

- Personally architected and built the AssistX core and approximately 75% of the initial HR application, then directed an 11-engineer Agile team through production releases on AWS.
- Designed a composable platform using Python, FastAPI, PostgreSQL/PGVector, LLM APIs, RAG, LangChain, LangGraph, agents, REST APIs, MCP servers and clients, workflow orchestration, and AWS CDK.
- Established model flexibility, prompt version control, LLM-as-judge and structural evaluations, synthetic-data testing, prompt-injection screening, human review, observability, and operational controls.
- Translated customer discovery and domain-expert input into a product roadmap; launched to 150+ early adopters and pilot users within approximately eight months.
- Directed implementation of LangChain, LangGraph, PostgreSQL/PGVector, AWS cloud services, multi-agent architectures, and retrieval-augmented generation pipelines.

Sr. Director of Engineering | *SuccessKPI* | Jun 2022 to Aug 2023

Led architecture, engineering, and delivery of a new Workforce Management capability within an AI-powered, AWS-based contact-center analytics SaaS platform.

- Recruited, coached, and managed eight engineers and one manager across a distributed team; owned performance reviews, compensation input, delivery planning, architecture, and stakeholder updates.
- Directed forecasting, scheduling, optimization, analytics, and platform integrations using Python, linear programming, Amazon S3, Aurora PostgreSQL, and enterprise CCaaS platforms.
- Delivered the initial production platform within 14 months for four customers, including two U.S. government departments, while operating within FedRAMP-informed requirements.

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

Modernized data and analytics for a \$1B+ enterprise with 11 acquired divisions and heterogeneous ERP systems.

- Defined the enterprise data strategy, secured executive support, prioritized 50+ business use cases, and grew an initial four-person analytics team into a seven-member AWS engineering organization.
- Delivered a 3 TB AWS data lake within 10 months using Glue, PySpark, S3, JDBC, and AWS CDK to ingest, catalog, consolidate, and normalize data across all 11 ERPs.
- Enabled consolidated analytics for finance, supply chain, sales, marketing, and operations while improving reporting turnaround by approximately 60x.

Engineering Lead, Cloud Data Privacy & AI Governance | *MassMutual* | Nov 2020 to Aug 2021

Established cloud-native engineering patterns for enterprise privacy, AI governance, and responsible AI initiatives in insurance and financial services.

- Directed architecture and hands-on implementation for privacy-rights management while guiding enterprise data catalog, adaptive-policy, permissible-use, and governance API initiatives.
- Partnered with enterprise architecture, security, and site reliability teams on AWS, IAM, serverless, integration, and CI/CD patterns that translated policy into practical controls.
- Advised AI Governance & Ethics leaders on model transparency, bias detection, drift monitoring, auditability, and lifecycle oversight using Amazon SageMaker.

Vice President, AI/ML | *NorthBay Solutions* | Jan 2019 to Nov 2020 (Role ended in company-wide COVID layoff).

Recruited from AWS by the CEO to establish the firm's enterprise AI consulting practice and expand its cloud, data, and machine-learning portfolio.

- Won CEO approval for a reusable Data Lake Accelerator, built the initial full-stack system hands-on, and led 18 offshore engineers through product completion and customer demonstrations.
- Advised enterprise clients including Dun & Bradstreet, Harvard Business School, 1091 Media, and Invesco on data strategy, AI/ML architecture, and AWS production delivery.
- Combined executive advisory, product management, reusable architectures, and hands-on implementation to expand repeatable enterprise AI and analytics offerings.

Sr. Specialist Solutions Architect, AI/ML and Big Data/Analytics | *Amazon Web Services* | May 2015 to Dec 2018

Served as AWS's first Senior Specialist Solutions Architect for AI/ML after leading Big Data and Analytics specialization during early enterprise adoption of EMR and SageMaker.

- Advised 200+ customers across financial services, healthcare, telecommunications, manufacturing, and technology on AI/ML, data lakes, analytics, governance, and production cloud architectures.
- Founded and led 100-member Big Data/Analytics and 80-member AI/ML technical communities; developed enablement, demonstrations, workshops, and onboarding for new services.
- Delivered 36 invited presentations, contributed to two AWS specialty certification exams, tested emerging services, and brought customer feedback to product teams.

PATENTS, RECOGNITION & EDUCATION

Patents: U.S. Patents 8,793,073 and 8,489,334; BioWizard Intelligent Agent Architecture patent application.

Recognition: AWS ML Elite Gold · AWS ML Elite Platinum · AWS re:Invent Rockstar · AWS Certification SME.

Education: Ph.D., Molecular Biology / Microbiology & Immunology; Hon. B.Sc., Microbiology & Immunology — University of Western Ontario. Canadian Medical Research Council Post-Doctoral Research Fellowship.

TECHNOLOGIES

Generative AI · AI agents · Model Context Protocol (MCP) · REST APIs · RAG · LangChain · LangGraph · LLM evaluation · Observability · Responsible AI · Amazon SageMaker · AWS Bedrock · Python · FastAPI · PostgreSQL · PGVector · AWS CDK · AWS Lambda · API Gateway · Amazon S3 · AWS Glue · PySpark · Apache Spark · Docker · Kubernetes