

Keith Steward, Ph.D.

Hands-On Agentic AI Engineering Leader | Enterprise Automation Architect

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EXECUTIVE PROFILE

Hands-on AI engineering leader who re-engineers complex operating workflows and turns them into secure production agents and automation. Combines Python, APIs, multi-agent orchestration, MCP, RAG, enterprise integration, evaluation, observability, governance, privacy, and adoption with small-team player-coach leadership. Architected AssistX across 70+ automations and 20+ workflows, delivered its first production release in eight months, and led 11 engineers. Brings the business judgment and technical depth to redesign work, ship the hardest workflows, and scale reusable AI practices across functions.

- Built a production agentic platform supporting 70+ automations across more than 20 enterprise workflows.
- Delivered the first production release within eight months and accelerated selected workflows by up to 50x.
- Led an 11-engineer Agile team while remaining hands-on in Python, APIs, RAG, orchestration, evaluation, and operations.
- Delivered regulated privacy and AI-governance systems with auditability, monitoring, and human oversight.
- Advised 200+ enterprises and trained 180+ architects, creating reusable adoption assets and technical communities.

EXECUTIVE LEADERSHIP & CORE EXPERTISE

- Multi-agent systems, MCP servers, RAG, agent-to-agent orchestration, APIs, integrations, and context layers
- Business-process re-engineering, opportunity prioritization, workflow redesign, automation, and measurable ROI
- Production lifecycle ownership, prototyping, deployment, monitoring, evaluation, error handling, and iteration
- HIPAA, privacy, security, audit trails, AI risk, governance standards, human oversight, and Responsible AI
- Hands-on coding, small-team leadership, executive communication, enablement, training, and adoption change

PROFESSIONAL EXPERIENCE

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

Lead AI product strategy, architecture, engineering execution, and operations for an applied Generative AI SaaS company.

- Architected and helped build AssistX, a production Generative AI assistant platform combining LLMs, AI agents, RAG, business data, vector search, and deterministic orchestration to support 70+ automations across more than 20 workflows.
- Delivered the initial production release within eight months and accelerated selected workflows by up to 50x while building reusable foundations for additional enterprise domains.
- Recruited and technically led an 11-engineer Agile organization while remaining hands-on in Python services, AWS infrastructure, APIs, AI orchestration, platform integration, evaluation, and operations.
- Established platform practices for security, maintainability, observability, human oversight, cost control, and multi-tenant SaaS delivery.
- Translated customer and product requirements into architecture, roadmaps, work breakdown, delivery priorities, and measurable workflow outcomes.

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

Led engineering and architecture for the Workforce Management component of an AI-powered contact-center SaaS platform.

- Built and led a distributed seven-person engineering team delivering forecasting, optimization, scheduling, analytics, and workflow capabilities on AWS.
- Translated detailed product requirements into cloud architecture, algorithms, APIs, work breakdown, automated delivery, and quality practices.
- Delivered the first production platform within six months and onboarded major enterprise customers, including the U.S. Department of State.

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 systems.

- Defined an AWS data strategy and roadmap with Finance, Marketing, Supply Chain, and technology leaders across more than 50 prioritized analytics use cases.
- Upskilled a four-person analytics group and grew it into a seven-member AWS data-engineering and analytics team with delivery, mentoring, review, planning, budget, and risk accountability.
- Delivered the company's first AWS data lake within seven months, automating nightly ingest, cataloging, normalization, and cross-ERP querying; reduced reporting from roughly two months to one day.

Head of Cloud Software & Technical Leadership, Data, Privacy & AI Governance | MassMutual | Boston, MA | Nov 2020 to Aug 2021

Established cloud-native engineering capabilities across five Data Privacy and AI Governance initiatives.

- Delivered MassMutual's first cloud-native privacy-rights platform within eight months, automating approximately 90% of a formerly manual CCPA, CPRA, and GDPR workflow.
- Advised AI Governance & Ethics on MLOps, model transparency, bias, drift, SageMaker, technical controls, auditability, and Responsible AI architecture.

VP of AI/ML | NorthBay Solutions | Boston, MA | Jan 2019 to Nov 2020

Established an enterprise AI/ML consulting practice and reusable AWS data-lake and machine-learning platform capability. Role ended in company-wide COVID layoff.

- Advised enterprise customers on AI, data, cloud, knowledge-graph, and production ML architecture, including Dun & Bradstreet, Harvard Business School, and Invesco.
- Proposed an AWS Data Lake and ML accelerator, built the initial system hands-on, and led a distributed 24-person team toward customer demonstrations and commercial delivery.

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

Helped establish AWS's specialist AI/ML organization while advising enterprises on production AI, analytics, and cloud adoption.

- Advised 200+ enterprise customers across healthcare, financial services, manufacturing, technology, and other industries on AI/ML, data lakes, distributed analytics, architecture, and adoption strategy.
- Founded and led global technical field communities for Big Data and AI/ML, growing the AI/ML community to more than 80 specialists and developing standards, enablement, and technical leadership.
- Trained 180+ AWS solution architects and delivered 50+ presentations on SageMaker, TensorFlow, EMR, Spark, Athena, data platforms, and AI architecture.

EARLIER RELEVANT EXPERIENCE

- Director of Cloud Development, CambridgeSoft (2010-2011): led a 25-person international team delivering cloud laboratory software for Sanofi and Merck and multi-tenant scientific SaaS capabilities.
- Bioinformatics Analysis Software Developer, Wyeth Research: delivered pharmaceutical bioinformatics software supporting drug-development research.
- Bioinformatics Scientist, Ingenuity Systems: served as an original developer of Ingenuity Pathway Analysis, which became a globally adopted commercial life-science platform.

PATENTS, RECOGNITION & SPEAKING

Named inventor on U.S. Patents 8,793,073 and 8,489,334 and the BioWizard genomic knowledge-discovery patent application. AWS ML Elite Gold and Platinum; AWS re:Invent Rockstar; 36+ invited industry and AWS presentations.

EDUCATION

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

TECHNOLOGIES

AI agents • multi-agent systems • MCP • RAG • LangChain • LangGraph • Python • FastAPI • REST APIs • workflow automation • workflow orchestration • PostgreSQL • PGVector • vector databases • Snowflake • Salesforce • AWS • AWS Bedrock • evaluation • observability • MLOps • AI governance • Responsible AI • data privacy • HIPAA