

Keith Steward, Ph.D.

Senior Director, Agentic AI Engineering | Enterprise Automation Architect

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EXECUTIVE PROFILE

Hands-on AI engineering leader who builds reusable agent platforms and converts enterprise workflows into secure production automation. Combines Python, APIs, LangChain, LangGraph, MCP, LLMs, RAG, multi-agent orchestration, evaluation, observability, governance, and AWS architecture with technical-team leadership. Architected AssistX, a commercial GenAI platform supporting 70+ automations across 20+ workflows, and delivered its first production release in eight months. Previously built enterprise AI/ML practices and advised 200+ AWS customers. Brings a builder's operating style, life-science background, and platform discipline to scale agentic AI across business functions.

- Built a reusable AI-assistant platform spanning 70+ automations and more than 20 enterprise workflows.
- Designed multi-agent, RAG, vector-search, API, and deterministic orchestration patterns for production use.
- Recruited and technically led 11 engineers while remaining hands-on in architecture and implementation.
- Established governance, observability, privacy, and cloud-delivery patterns in regulated enterprises.
- Ph.D. and commercial life-science software background provide a credible biotechnology domain bridge.

EXECUTIVE LEADERSHIP & CORE EXPERTISE

- Reusable agent frameworks, multi-agent architecture, orchestration, tool use, MCP, and workflow automation
- Production software engineering with Python, SQL, APIs, Git, testing, CI/CD, and cloud-native architecture
- LLMs, RAG, vector databases, prompt/workflow engineering, evaluation, observability, and human oversight
- Enterprise AI platform strategy, standards, deployment, governance, security, and emerging-technology assessment
- Hands-on technical leadership, cross-functional partnership, mentoring, and delivery accountability

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.
- Implemented reusable LangChain, LangGraph, PGVector, API, and multi-agent patterns supporting accelerated development of domain-specific assistants.

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

Agentic AI • AI agents • multi-agent systems • LLMs • RAG • LangChain • LangGraph • MCP • tool use • workflow orchestration • human-in-the-loop • OpenAI API • AWS Bedrock • AWS SageMaker • Python • SQL • FastAPI • REST APIs • PostgreSQL • PGVector • vector databases • evaluation • observability • AI governance • AWS