

# Keith Steward, Ph.D.

## Enterprise Architecture Executive | AI-Native Cloud Platforms

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### PROFILE

Enterprise architecture executive who turns complex cloud, software, data, and AI ecosystems into coherent platforms, practical standards, and measurable business value. Combines 29+ years of architecture experience with deep AWS, distributed systems, security, reliability, and agentic AI delivery. Built production platforms across five commercial SaaS offerings, advised 200+ enterprises, and developed 180+ AWS specialists. Brings the technical judgment to define target-state architecture, mentor architects, govern trade-offs, and move AI-native capabilities from strategy into reliable global products.

### SELECTED QUALIFICATIONS

- **Architecture Strategy:** target-state design, platform boundaries, standards, governance, technical roadmaps, TCO, ROI, and executive alignment
- **AI-Native Platforms:** LLMs, RAG, agents, orchestration, vector search, evaluation, observability, data engineering, and reusable patterns
- **Cloud & Distributed Systems:** AWS, APIs, microservices, event-driven architecture, scalability, performance, resilience, security, and compliance
- **Technical Leadership:** architect mentoring, global communities, change management, cross-functional decisions, product partnership, and engineering excellence

### PROFESSIONAL EXPERIENCE

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

*Lead AI product strategy, architecture, engineering execution, and operations 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 services.
- Delivered the first commercial 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 platform operations.
- Established reusable foundations for voice interaction, MCP, multi-agent workflows, controlled prompts, input validation, prompt-injection protection, vector search, human review, and observability.
- Validated the platform with hundreds of user signups at launch and estimated annual customer savings of approximately \$54,000 per organization.
- 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 engineering for an AI-powered contact-center Workforce Management SaaS product.*

- Recruited and led a seven-person distributed team delivering forecasting, optimization, scheduling, analytics, and automated communications on AWS.
- Translated product requirements into architecture, algorithms, APIs, testing, CI/CD, operations, and two-week Agile releases.
- Designed forecasting and linear-programming capabilities that converted contact-center demand and staffing constraints into operational schedules.
- Delivered the first working release within six months for two flagship enterprise customers and expanded the platform to additional large organizations.

#### 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.*

- Prioritized 50+ analytics use cases with Finance, Marketing, Supply Chain, and technology leaders and secured support for an AWS data strategy.
- Upskilled four analysts and grew the team to seven AWS engineers with hiring, mentoring, planning, budget, risk, and delivery accountability.

- Established nightly data ingestion, cataloging, consolidation, normalization, and global querying across 11 geographically distributed ERP environments.
- Delivered the 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**

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

- Converted policy and product 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 manual workflow.
- Partnered with Enterprise Architecture and SRE on IAM, serverless patterns, managed services, infrastructure automation, resilience, and cloud operating standards.
- 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.
- Delivered an AWS Neptune knowledge graph integrating complex hierarchical enterprise data and expanded reusable cloud and AI architectures for customers.
- Advised enterprise customers on AI strategy, data platforms, knowledge graphs, solution architecture, and production implementation.

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

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

- Advised 200+ enterprises on AI/ML strategy, production architecture, SageMaker, data lakes, distributed systems, security, and scalable adoption.
- Created and led global Big Data and AI/ML communities, developing 180+ specialists through standards, mentoring, workshops, and reusable assets.
- Built a SageMaker and TensorFlow forecasting hackathon for Morgan Stanley data scientists and created 170+ technical enablement assets.
- Delivered 50+ technical presentations and workshops and earned AWS ML Elite Gold and Platinum recognition.

## **EARLIER RELEVANT EXPERIENCE**

- Led a 25-person architecture and software organization across four countries while delivering enterprise scientific SaaS and customer programs.
- Built and operated a fault-tolerant AWS and Cassandra platform for an FDA-cleared connected product with integrations, monitoring, and analytics.

## **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**

enterprise architecture • cloud-native architecture • AI-native architecture • distributed systems • AWS • SageMaker • AI agents • LLMs • RAG • LangChain • LangGraph • PGVector • Python • FastAPI • REST APIs • microservices • event-driven architecture • data engineering • data lakes • Spark • PostgreSQL • Cassandra • Docker • Kubernetes • AWS CDK • CloudFormation • CI/CD • security • IAM • compliance • reliability • performance • observability • MLOps • AI governance • Responsible AI