

# Keith Steward, Ph.D.

## Engineering Manager | AI-Enabled Healthcare Platforms

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

## PROFILE

Hands-on engineering manager who builds teams and production systems spanning Python, APIs, data models, AI/ML, LLMs, workflow automation, architecture, testing, observability, and cloud operations. Built the AssistX core and first 80% of its initial application while recruiting and leading 11 engineers, enabling 70+ automations across more than 20 workflows with 99.9% availability. Combines player-coach execution, product partnership, early-stage pragmatism, HIPAA/FDA-facing technology, and disciplined engineering practices to ship dependable healthcare and enterprise software.

## SELECTED CAREER HIGHLIGHTS

- Built the core and first 80% of a production AI application hands-on, then recruited and led 11 engineers through architecture, code reviews, testing, releases, and operations.
- Designed Python, FastAPI, API, data-model, PostgreSQL/PGVector, agent, RAG, evaluation, and workflow-orchestration capabilities across 20+ workflows.
- Established testing, regression, evaluation, guardrail, human-review, observability, cost, security, staged-release, and incident-response practices.
- Directed cloud software for an FDA-cleared healthcare product and led privacy and AI-governance engineering in regulated financial services.
- Translated ambiguous customer and product needs into pragmatic architecture, delivery roadmaps, measurable outcomes, and reliable operations.
- Built and mentored multidisciplinary teams while remaining close to code, architecture, debugging, production quality, and technical tradeoffs.
- Connected product requirements, architecture decisions, delivery evidence, reliability signals, security controls, operational feedback, and engineering capacity through transparent technical reviews that improved prioritization, quality, and accountable execution.

## PROFESSIONAL EXPERIENCE

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

*Build and operate a production AI platform while owning strategy, architecture, delivery, governance, security, and cloud operations.*

- Architected and built the AssistX core platform and first 80% of its initial application hands-on using Python, FastAPI, LLMs, RAG, agents, PostgreSQL/PGVector, APIs, Docker, AWS, and CDK.
- Recruited and technically led 11 engineers while owning a \$900,000 budget, product priorities, architecture, releases, security, and operations.
- Delivered 70+ automations across more than 20 workflows, accelerating selected work by up to 50x and sustaining 99.9% availability.
- Established evaluation, guardrails, human oversight, observability, model routing, cost controls, incident response, and release practices.
- 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

*Built and led engineering for an AI-powered workforce-management component of a cloud-native contact-center SaaS platform.*

- Recruited and led an 11-person organization, including a manager, spanning software, data, platform, security, BI, and quality engineering.
- Owned Agile execution, architecture, operational priorities, performance reviews, bonus allocation, team capacity, and a \$600,000 budget.
- Delivered forecasting, scheduling, optimization, analytics, APIs, and integrations for enterprise and government customers.

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

*Established the enterprise data strategy, engineering team, architecture, roadmap, and operating capability across a fragmented multi-division environment.*

- Aligned executives around more than 50 analytics use cases and secured funding for an AWS data-lake strategy and delivery roadmap.
- Upskilled an analytics team with no prior AWS experience and expanded it to seven cloud data engineers.

- Delivered the first enterprise data lake across 11 divisions in seven months, reducing 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.*

- Led architecture and engineering across five enterprise Data Privacy and AI Governance initiatives spanning privacy rights, enterprise metadata, policy automation, and governance APIs.
- Advised the AI Governance and Ethics organization on model transparency, bias, drift, ownership, risk classification, monitoring, human oversight, and auditability.
- Established AWS security, IAM, API, event-driven, and CI/CD patterns while coordinating Product, Enterprise Architecture, SRE, governance, and delivery teams.

## **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**

- Built an AWS data-and-ML accelerator and delivered enterprise AI/ML consulting solutions with reusable cloud architectures and production implementation guidance.
- Developed commercial AI, bioinformatics, and scientific software, including patented knowledge-discovery systems.

## **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**

engineering management • player-coach leadership • Python • FastAPI • REST APIs • data models • PostgreSQL • PGVector • AI/ML • Generative AI • LLMs • AI agents • RAG • MCP • workflow automation • full-stack systems • distributed systems • event-driven architecture • AWS • Amazon Bedrock • SageMaker • Docker • Kubernetes • AWS CDK • CI/CD • automated testing • regression testing • AI evaluation • LLM-as-judge • observability • monitoring • reliability • incident response • security • HIPAA • healthcare technology • Responsible AI • product partnership • technical mentoring