

Keith Steward, Ph.D.

VP, AI & Data Platforms | Life Sciences Technology Executive

Boston, MA | 508-318-8035 | keith.steward@gmail.com | [LinkedIn](#) | IntelligentDataWorks.ai | <https://bit.ly/3Th0CFX>

EXECUTIVE PROFILE

AI and engineering executive who turns complex scientific, data, and business needs into secure production platforms and high-performing organizations. Built a production GenAI platform with 70+ automations across 20+ workflows, recruited and led an 11-engineer team, and advised 200+ AWS customers on AI/ML and distributed data architectures. Combines hands-on architecture and code review with strategy, product prioritization, governance, and cross-functional leadership. Brings rare depth spanning genomics, bioinformatics, healthcare technology, enterprise AI, and cloud-scale delivery.

SELECTED CAREER HIGHLIGHTS

- Architected and built AssistX, a production-grade GenAI platform supporting 70+ automations across 20+ workflows; delivered its first commercial release within eight months.
- Recruited and directly led an 11-engineer AI development team while remaining hands-on in product management, architecture, cloud infrastructure, AI orchestration, and platform coding.
- Advised 200+ AWS customers on AI/ML, Big Data, and cloud adoption and grew global technical communities to 80+ AI/ML and 100 Big Data specialists.
- Developed early genomics AI for drug-target evaluation and helped create Ingenuity Pathway Analysis, a globally adopted commercial bioinformatics product.
- Delivered enterprise platforms with measurable impact, including a 60× reporting-cycle improvement and roughly 90% automation of a privacy-rights workflow.

LEADERSHIP & TECHNICAL STRENGTHS

AI leadership: AI strategy • roadmap ownership • multidisciplinary team building • architecture and code review • executive communication • mentoring

Production AI: applied ML • predictive analytics • Generative AI • NLP • LLMs • RAG • AI agents • MLOps • model evaluation • Responsible AI

Data and platforms: distributed systems • data lakes • cloud-native architecture • Kubernetes • APIs • privacy • security • governance • observability

PROFESSIONAL EXPERIENCE

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

Owns AI strategy, product architecture, engineering execution, delivery, and operations for an applied-AI SaaS company.

- Architected and personally built the AssistX core platform and the first 80% of its HR application, integrating LLMs, RAG, AI agents, PostgreSQL/PGVector, FastAPI, Python, and AWS services.
- Recruited and directly managed 11 software engineers selected from 400+ applicants; established the architecture, Agile process, technical standards, training, code-review practices, and two-week delivery cadence.
- Delivered the initial production release within eight months, supporting hundreds of launch signups and automating selected knowledge-intensive workflows by up to 50×.
- Implemented guardrails, controlled and versioned prompts, input validation, prompt-injection protections, observability, and an evaluation framework to support reliable AI behavior.
- Led product discovery and roadmap decisions across HR professionals, pilot customers, engineering, operations, and business stakeholders while operating the AWS platform through infrastructure as code.
- Initiated strategic acquisition discussions regarding IDW's AI platform as part of a planned transition to a senior AI/engineering leadership role.

Sr. Director of Engineering | SuccessKPI | Remote | Jun 2022–Aug 2023

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

- Built and led a seven-member distributed engineering team delivering forecasting, scheduling, optimization, analytics, and enterprise integrations on AWS.
- Translated detailed product requirements into architecture, algorithms, software designs, and sprint plans while partnering across product, QA, and customer-facing teams.
- Delivered the first production platform within six months and onboarded enterprise customers including the U.S. Department of State.
- Directed predictive forecasting and operations-research capabilities using machine learning and linear programming for large-scale workforce planning.

Sr. Director, Data Analytics & Operations | TriMark USA | Mansfield, MA | Aug 2021–May 2022

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

- Defined an AWS-based data strategy and secured executive support by prioritizing 50+ analytics use cases with finance, marketing, supply chain, and operating leaders.
- Expanded and upskilled a four-person analytics group into a seven-member AWS engineering and analytics team, providing planning, hiring, mentoring, and performance management.
- Delivered the company's first enterprise data lake within seven months and reduced cross-ERP reporting from roughly two months to one day—a 60× improvement.

Engineering Lead, Cloud Data Privacy & AI Governance | MassMutual | Boston, MA | Nov 2020–Aug 2021

Led AWS architecture and implementation across five Data Privacy and AI Governance initiatives.

- Partnered with product management, Enterprise Architecture, SRE, and Governance & Ethics teams to prioritize requirements and deliver secure cloud-native systems through Agile sprints and CI/CD.
- Advised on AI model inventory, ownership, risk classification, testing, model transparency, bias and drift monitoring, human oversight, observability, and auditability.
- Delivered a privacy-rights platform addressing CCPA, CPRA, and GDPR within eight months, automating roughly 90% of a formerly manual workflow.

VP of AI/ML | NorthBay Solutions | (Role ended in company-wide COVID layoff). | Boston, MA | Jan 2019–Nov 2020

Recruited out of AWS by the CEO to head a new AI/ML practice and build repeatable customer solutions.

- Defined the practice strategy, advised enterprise customers on AI and data architectures, and translated customer requirements into delivery roadmaps and production solutions.
- Proposed and secured CEO approval for an AWS Data Lake + ML Accelerator, built the initial full-stack system hands-on, and led a 24-person remote team toward commercial delivery.
- Delivered machine-learning engagements spanning predictive modeling, analytics, cloud data platforms, and knowledge-graph systems for enterprise customers.

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

Advised enterprises and scaled AWS field capability during early adoption of machine learning, SageMaker, and distributed analytics.

- Advised 200+ enterprise customers and senior leaders on AI/ML strategy, production architectures, data lakes, distributed analytics, and AWS adoption.
- Founded and led global technical communities of 80+ AI/ML and 100 Big Data specialists, establishing standards, mentoring members, and creating 170+ technical assets.
- Trained 180+ AWS Solution Architects on SageMaker, TensorFlow, EMR, Athena, Spark, and related services; earned AWS ML Elite Gold and Platinum recognition.
- Designed hands-on ML systems and workshops, including a SageMaker/TensorFlow market-prediction exercise and an early AI-agent architecture presented at AWS re:Invent.

SELECTED LIFE SCIENCES & HEALTH TECHNOLOGY EXPERIENCE

- At Ingenuity Systems, served as an original developer of Ingenuity Pathway Analysis, which became a globally adopted commercial bioinformatics product for biotechnology, pharmaceutical, and government research organizations.
- At Gene Logic, developed BioWizard, an AI system using 400 rules and the UMLS Medical Ontology to emulate scientist evaluation of genomic drug targets; a patent application was submitted.
- At Wyeth Research, developed bioinformatics analysis software supporting pharmaceutical research and genomic knowledge discovery.

EDUCATION & RECOGNITION

Ph.D., Molecular Biology / Microbiology & Immunology, University of Western Ontario • Canadian Medical Research Council Post-Doctoral Research Fellowship • U.S. Patents 8,793,073 and 8,489,334 • AWS ML Elite Gold and Platinum

TECHNOLOGIES

Python • TensorFlow • Amazon SageMaker • Spark • SparkML • EMR • Athena • AWS Glue • S3 • Lambda • Step Functions • API Gateway • EventBridge

Kubernetes • Docker • FastAPI • PostgreSQL • PGVector • LangChain • LangGraph • RAG • AI Agents • LLMs • OpenAI API • Amazon Bedrock

MLOps • Model Evaluation • Model Explainability • Bias Detection • Drift Detection • Observability • Responsible AI • Data Lakes • Distributed Systems • Knowledge Graphs • AWS CDK • CI/CD