

Keith Steward, Ph.D.

Data Science Director | Applied AI & ML Systems

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

PROFILE

Hands-on data science and AI leader who turns ambiguous business problems into production models, agentic systems, shared technical capabilities, and measurable outcomes. Combines predictive modeling, forecasting, optimization, machine learning, LLM applications, experimentation, AWS, Spark, governance, and observability with close team leadership. Built and technically led 11 engineers, delivered an AI platform with 70+ automations, and reduced enterprise reporting from two months to one day. Brings the player-coach depth to set technical direction, strengthen production readiness, mentor senior talent, and align data science with product strategy.

SELECTED QUALIFICATIONS

- **Data Science Architecture:** predictive modeling, forecasting, optimization, statistical analysis, experimentation, model evaluation, and production deployment
- **Modern AI Systems:** agentic AI, LLM applications, RAG, NLP, deep learning, shared frameworks, APIs, vector search, and workflow orchestration
- **Production Readiness:** testing, documentation, CI/CD, governance, explainability, observability, monitoring, security, and human oversight
- **Player-Coach Leadership:** technical decision ownership, hiring, mentoring, performance development, prioritization, product alignment, and Agile operating rhythms

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 AI/ML | NorthBay | Jan 2019-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 and operated a fault-tolerant AWS/Cassandra platform with monitoring, performance analytics, APIs, integrations, and no significant production downtime.
- Created applied machine-learning and knowledge-discovery systems across forecasting, genomics, bioinformatics, and enterprise data while leading multidisciplinary technical teams.

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

data science • machine learning • agentic AI • predictive modeling • statistical analysis • forecasting • optimization • experimentation • model evaluation • TensorFlow • Python • SQL • deep learning • NLP • LLM applications • RAG • AI agents • LangChain • LangGraph • vector search • responsible AI • model governance • model explainability • observability • performance monitoring • AWS • SageMaker • Spark • Hadoop • EMR • Databricks • data lakes • PostgreSQL • PGVector • FastAPI • REST APIs • CI/CD • Docker • Kubernetes • AWS CDK • Git • Linux