

Keith Steward, Ph.D.

Machine Learning Engineering Manager | Production AI Builder

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

PROFILE

Machine learning engineering manager and hands-on AI builder who develops teams and carries complex systems from architecture through production operations. Combines forecasting, optimization, model lifecycle practices, Python, AWS, and modern agentic AI with pragmatic delivery leadership. Recruited and led teams of 7 and 11 while shipping production platforms in six to eight months, and advised 200+ enterprises on AI and data adoption. Brings player-coach credibility to strengthen experimentation, technical decision-making, delivery pace, and measurable product impact.

SELECTED QUALIFICATIONS

- **ML Engineering Leadership:** hiring, coaching, technical direction, performance management, roadmaps, and delivery accountability
- **Production Machine Learning:** forecasting, optimization, SageMaker, TensorFlow, model lifecycle, evaluation, deployment, and monitoring
- **Hands-On AI Systems:** Python, APIs, cloud architecture, LLMs, agents, RAG, vector search, orchestration, and automation
- **Player-Coach Execution:** architecture reviews, Agile delivery, ambiguity management, stakeholder alignment, reliability, and governance

PROFESSIONAL EXPERIENCE

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

Lead hands-on AI product architecture, engineering execution, and production operations for a reusable enterprise AI platform.

- Architected and helped build AssistX with Python, FastAPI, PostgreSQL/PGVector, LLMs, RAG, AI agents, APIs, LangChain, LangGraph, workflow orchestration, and AWS.
- Delivered the first commercial release within eight months; the platform supports 70+ automations across more than 20 workflows and accelerates selected work by up to 50x.
- Recruited and technically led an 11-engineer Agile team while remaining hands-on in architecture, cloud infrastructure, backend services, code reviews, security, evaluation, and platform operations.
- Established reusable platform foundations for multi-agent workflows, model and prompt controls, input validation, vector search, human review, and observability.
- 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 ML 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.
- Delivered the first working release within six months for two flagship enterprises 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 and built a seven-member AWS engineering and analytics team through hiring, mentoring, and upskilling.
- 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 a cloud-native privacy-rights platform within eight months, automating approximately 90% of a manual workflow.
- 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, APIs, and cloud services, then directed a 24-person remote team toward delivery.
- Advised enterprise customers on AI strategy, data platforms, knowledge graphs, solution architecture, and production implementation.
- Delivered reusable cloud and ML architectures spanning distributed data, analytics, graph systems, and machine-learning workloads.

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 and created 170+ technical enablement assets for customer and field teams.
- Delivered 50+ technical presentations and workshops and earned AWS ML Elite Gold and Platinum recognition.

EARLIER RELEVANT EXPERIENCE

- Developed an early AI agent for genomic drug-target evaluation and later helped create a globally adopted commercial bioinformatics platform.
- Led production software, cloud, and data products across startup, enterprise, and regulated technology environments.
- At Gene Logic, built BioWizard with a 400-rule inference engine and UMLS ontology support to automate scientific evaluation of candidate genomic drug targets.
- At CambridgeSoft, led a 23-person organization delivering commercial scientific software while remaining close to architecture, requirements, quality, and customer needs.
- Brought five commercial SaaS and connected-software products to market across applied AI, workforce technology, bioinformatics, enterprise science, and regulated digital health.
- Named inventor on multiple software patents and recognized by AWS for machine-learning leadership, technical enablement, architecture, and customer impact.

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

machine learning • ML engineering • production ML • forecasting • optimization • model evaluation • MLOps • SageMaker • TensorFlow • Python • Pandas • NumPy • Spark ML • AWS • data platforms • data lakes • distributed systems • REST APIs • FastAPI • PostgreSQL • PGVector • LLMs • AI agents • RAG • LangChain • LangGraph • workflow orchestration • AI governance • bias detection • drift detection • observability • Docker • Kubernetes • CI/CD • AWS CDK • Git • Linux