

EXECUTIVE PROFILE

Enterprise architecture leader who connects business and product strategy to practical cloud, data, knowledge, and AI platforms. Combines hands-on system design with leadership across distributed systems, APIs, security, knowledge graphs, ontologies, RAG, agentic workflows, evaluation, and responsible AI. Built production SaaS and AI platforms, delivered a 60x improvement in enterprise reporting, and advised 200+ AWS customers. Earlier life-science work includes genomic knowledge discovery and globally adopted pathway-analysis software. Brings credible clinical-informatics depth and disciplined architecture decision-making from strategy through implementation.

- Designed production AI, cloud, data, knowledge-graph, and SaaS architectures across startups and enterprises.
- Delivered TriMark's first AWS data lake across 11 ERPs, reducing reporting from two months to one day.
- Built Dun & Bradstreet's first AWS Neptune knowledge graph for hierarchical enterprise data.
- Original developer of Ingenuity Pathway Analysis and inventor on genomic knowledge-discovery patents.
- Led technical organizations and communities ranging from hands-on product teams to 80+ global AWS specialists.

EXECUTIVE LEADERSHIP & CORE EXPERTISE

- Enterprise architecture strategy, decision frameworks, platform boundaries, interfaces, and technology roadmaps
- Cloud-native systems, distributed architecture, APIs, integration, data platforms, security, reliability, and cost
- Knowledge graphs, ontologies, clinical informatics, retrieval, knowledge-grounded AI, and human oversight
- Agentic systems, RAG, evaluation, observability, responsible AI, and production implementation guidance
- Architecture-team leadership, mentoring, executive influence, customer engagements, and cross-functional alignment

PROFESSIONAL EXPERIENCE

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

Lead AI product strategy, architecture, engineering execution, and operations for an applied Generative AI SaaS company.

- Architected and helped build AssistX, a production Generative AI assistant platform combining LLMs, AI agents, RAG, business data, vector search, and deterministic orchestration to support 70+ automations across more than 20 workflows.
- Delivered the initial production release within eight months and accelerated selected workflows by up to 50x while building reusable foundations for additional enterprise domains.
- Recruited and technically led an 11-engineer Agile organization while remaining hands-on in Python services, AWS infrastructure, APIs, AI orchestration, platform integration, evaluation, and operations.
- Established platform practices for security, maintainability, observability, human oversight, cost control, and multi-tenant SaaS delivery.
- Translated customer and product requirements into architecture, roadmaps, work breakdown, delivery priorities, and measurable workflow outcomes.
- Defined reusable platform boundaries and interfaces across LLM services, RAG, vector storage, agent workflows, enterprise data, and cloud infrastructure.

Senior Director of Engineering | SuccessKPI | Remote | Jun 2022 to Aug 2023

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

- Built and led a distributed seven-person engineering team delivering forecasting, optimization, scheduling, analytics, and workflow capabilities on AWS.
- Translated detailed product requirements into cloud architecture, algorithms, APIs, work breakdown, automated delivery, and quality practices.
- Delivered the first production platform within six months and onboarded major enterprise customers, including the U.S. Department of State.

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.

- Defined an AWS data strategy and roadmap with Finance, Marketing, Supply Chain, and technology leaders across more than 50 prioritized analytics use cases.
- Upskilled a four-person analytics group and grew it into a seven-member AWS data-engineering and analytics team with delivery, mentoring, review, planning, budget, and risk accountability.
- Delivered the company's first AWS data lake within seven months, automating nightly ingest, cataloging, normalization, and cross-ERP querying; reduced reporting from roughly two months to one day.

Established cloud-native engineering capabilities across five Data Privacy and AI Governance initiatives.

- Led architecture and hands-on engineering for Privacy Rights Management, enterprise metadata, governance APIs, and policy-automation initiatives using AWS cloud-native patterns.
- Delivered MassMutual's first cloud-native privacy-rights platform within eight months, automating approximately 90% of a formerly manual CCPA, CPRA, and GDPR workflow.
- Advised AI Governance & Ethics on MLOps, model transparency, bias, drift, SageMaker, technical controls, auditability, and Responsible AI architecture.

VP of AI/ML | NorthBay Solutions | Boston, MA | Jan 2019 to Nov 2020

Established an enterprise AI/ML consulting practice and reusable AWS data-lake and machine-learning platform capability. Role ended in company-wide COVID layoff.

- Advised enterprise customers on AI, data, cloud, knowledge-graph, and production ML architecture, including Dun & Bradstreet, Harvard Business School, and Invesco.
- Proposed an AWS Data Lake and ML accelerator, built the initial system hands-on, and led a distributed 24-person team toward customer demonstrations and commercial delivery.
- Built Dun & Bradstreet's first AWS Neptune knowledge graph to integrate hierarchical Kmart and Sears business data.

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

Helped establish AWS's specialist AI/ML organization while advising enterprises on production AI, analytics, and cloud adoption.

- Advised 200+ enterprise customers across healthcare, financial services, manufacturing, technology, and other industries on AI/ML, data lakes, distributed analytics, architecture, and adoption strategy.
- Founded and led global technical field communities for Big Data and AI/ML, growing the AI/ML community to more than 80 specialists and developing standards, enablement, and technical leadership.
- Trained 180+ AWS solution architects and delivered 50+ presentations on SageMaker, TensorFlow, EMR, Spark, Athena, data platforms, and AI architecture.
- Earned AWS ML Elite Gold and Platinum recognition and contributed to AWS Big Data and AI certification exams.

EARLIER RELEVANT EXPERIENCE

- Director of Software, Dimensional Photonics (2012-2014): delivered FDA-cleared connected dental technology and architected a fault-tolerant AWS cloud, data, analytics, and integration platform within four months.
- Director of Cloud Development, CambridgeSoft (2010-2011): led a 25-person international team delivering cloud laboratory software for Sanofi and Merck and multi-tenant scientific SaaS capabilities.
- Life-science informatics roles at Wyeth Research, Spectral Genomics, Bacterial Barcodes, Ingenuity Systems, Monsanto, Gene Logic, and Sequana Therapeutics: built genomic knowledge-discovery, pathway-analysis, molecular-diagnostics, and regulated software capabilities.
- Original developer of Ingenuity Pathway Analysis, which became a globally adopted commercial platform for biotechnology, pharmaceutical, government, and academic research organizations.

PATENTS, RECOGNITION & SPEAKING

Named inventor on U.S. Patents 8,793,073 and 8,489,334 and the BioWizard genomic knowledge-discovery patent application. AWS ML Elite Gold and Platinum; AWS re:Invent Rockstar; 36+ invited industry and AWS presentations.

EDUCATION

Ph.D., Molecular Biology / Microbiology & Immunology, University of Western Ontario | Canadian Medical Research Council Post-Doctoral Research Fellowship | Hon. B.Sc., Microbiology & Immunology

TECHNOLOGIES

Enterprise architecture • cloud-native architecture • distributed systems • microservices • REST APIs • event-driven architecture • AWS • AWS Bedrock • AWS SageMaker • API Gateway • Kafka • Docker • Kubernetes • CI/CD • Python • FastAPI • SQL • PostgreSQL • PGVector • data platforms • data lakes • knowledge graphs • AWS Neptune • SPARQL • ontology • RAG • Agentic AI • AI agents • LangChain • LangGraph • evaluation • observability • Responsible AI • AI governance • security • data privacy • HIPAA • GDPR • SaaS architecture • enterprise integration