

Harry A. Layman, PhD

AI Product Leader

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Senior AI product leader with 10+ years driving intelligent products from concept through scaled deployment. Track record building and managing product organizations at the intersection of AI/ML technology and complex business domains including enterprise services (Dell Technologies), educational assessment (College Board, ThinkCERCA), healthcare, and industrial equipment. Skilled at translating technical capabilities into product roadmaps, managing cross-functional teams, and delivering measurable outcomes — including two national innovation awards and a published research chapter. Hands-on technical fluency in GenAI, NLP, and predictive analytics. PhD in Educational Measurement; MBA from Columbia.

PROFESSIONAL EXPERIENCE

Principal Consultant & AI Product Manager

Oct 2024 – Present

CogWrite Semantic Technologies — San Diego, CA

- Product owner and solution architect for **Cognosa AlaaS platform** — a multi-tenant RAG solution serving two enterprise customers: one with 1,400+ product SKUs (architectural lighting), another with complex industrial equipment across 20 product lines.
- Built and maintained product roadmaps, facilitated requirements workshops, led prototype reviews, and managed design tradeoff decisions with client stakeholders across both engagements.
- Delivered a Sales Quote Management platform automating quote lifecycle from customer contact through acceptance, enabling systematic regeneration when regional pricing or configuration parameters changed.

Senior Technical Advisor

Aug 2024 – Sep 2025

CalSAWS.org via Ethos West LLC — Remote

- Provided technical oversight for California's statewide benefits management system — reviewed vendor deliverables, validated system sizing and security, and advised on AWS architecture, ML integration, and GenAI adoption strategies.

Vice President, Data Science

Jan 2022 – Aug 2024

ThinkCERCA, LLC — San Diego, CA

- Led development of the Automated Writing Evaluation product — won the **2022 Learning Engineering Tools Competition (\$250K prize)** and contributed to follow-on awards and multiple patent applications.
- Drove product evolution from computational linguistics to GenAI-based scoring, demonstrating that LLM approaches outperformed prior transformer models while generalizing across lesson families — a key product scalability breakthrough.
- Published research in the 2024 Routledge Handbook of Automated Essay Evaluation; hired and managed a data science team to sustain and extend the platform.

Program Manager, Applied Data Science & Engineering

Mar 2019 – Jan 2022

Dell Technologies LLC — Austin, TX

- First hire in new Applied Data Science group; defined the data science product development lifecycle by melding CRISP-DM with Dell's internal product management processes, enabling multiple successful AI integrations into service offerings.
- Won **Dell AI Center of Excellence Award** for innovative solutions preventing blue-screen errors. Managed cross-functional alignment between data science, software engineering, product management, and operations teams.
- Contributed to Dell's Data Science Community forum; helped shape the enterprise AI & ML Landscape initiative.

Solution Architect & Project Director

Oct 2015 – Feb 2019

CogWrite Learning Analytics — Irvine, CA

- Directed NLP and speech analytics projects for multiple clients on AWS and Azure — including a year-long evaluation of AI-driven diagnostic radiology assessment tools for the American College of Radiology.
- Developed real-time job classification microservices and psychological text scoring systems; provided strategic architecture direction for a global medical specialty organization.

Executive Director, Enterprise Architecture & Digital Testing

Jan 2010 – Oct 2015

The College Board — Reston, VA

- Established the Digital Testing Center of Excellence — built a new product organization from a research initiative, managing the technology review pipeline and digital assessment services across the enterprise.
- Led research and vendor evaluation for ML-based automated scoring, adaptive testing designs, and digital test delivery platforms; contributed to multi-million-dollar procurements.

Earlier Career

CTO at LifeMinders (NASDAQ, e-commerce personalization) · Director, offshore development teams, Hangzhou, PRC · Executive Director, College & University Services, The College Board · CEO & Founder, Virginia Software (acquired by College Board, 1996). Clients included Sallie Mae, Freddie Mac, and Fannie Mae.

EDUCATION

PhD, Educational Measurement, Assessment & Testing — University of Leicester	2021
MBA, Strategic Marketing Planning — Columbia University	2003
MS, Management of Technology — American University	1980
BS, Computer Science — Columbia University, School of Engineering & Applied Science	1978

AWARDS & PUBLICATIONS

- ThinkCERCA: **2021 Learning Engineering Tools Competition Winner — \$250K Award** (K-12 Assessment category). Contributor on follow-on awards and patent applications.
- Dell: **FY21 AI Center of Excellence Award** for innovative predictive analytics solutions.
- Layman, H. A. (2024). "Automated Feedback in Formative Assessment." In *The Routledge International Handbook of Automated Essay Evaluation*. Routledge.

TECHNICAL PROFICIENCIES

AI/ML: GenAI (GPT, Claude, Gemini), RAG architectures, LangChain, prompt engineering, NLP/NLU, predictive analytics, automated scoring & feedback systems, transformer models

Product & Delivery: Product roadmapping, backlog management, Agile/Scrum (PSM I), CRISP-DM, stakeholder engagement, requirements analysis, rapid prototyping, cross-functional team leadership

Technical: AWS (certified SA + ML Specialist), Python, FastAPI, React/TypeScript, PostgreSQL, vector databases, Docker, microservices architecture

CERTIFICATIONS

AWS Solutions Architect (2014–2023) · AWS Machine Learning Specialist (2021–2024) · Professional Scrum Master I · Prior: CISSP, CISA, PMP