

Todd H. Albert, Ph.D.

Two-time founder-CTO and engineering executive — I set technical direction and scale big systems and teams

30+ years Software • 15+ years Leadership • DiSC: iD • Boynton Beach, FL

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EXECUTIVE PROFILE

Two-time founder-CTO and senior technology leader at CYPHER Learning, where I own technology strategy, architecture direction, and the full engineering organization. I lead 30 engineers across 6 countries on a multi-tenant SaaS platform serving ~2M monthly active users and 700+ enterprise customers, and I own keeping it fast and reliable as it grows. 15+ years leading engineering across SaaS, EdTech, AdTech, fintech, AI, and cloud infrastructure, including private-equity-backed transformation. Former NASA-funded research scientist and grant evaluator; founder, educator, and author.

SIGNATURE STRENGTHS

- Setting technology strategy and architecture direction, then owning delivery and reliability at scale
- Operating multi-tenant SaaS at scale — holding uptime and performance steady as load and customer base grow
- Leading distributed engineering, DevOps, QA, and integration teams across time zones
- Translating ambiguity into executive- and board-level decisions
- Modernizing legacy platforms, delivery systems, and cloud operations
- Connecting scientific rigor, product judgment, and hands-on technical depth

PROFESSIONAL EXPERIENCE

VP of Engineering, CYPHER Learning

Oct 2024 – present

Global SaaS learning platform | Private-equity-backed | Remote

- Own technology strategy, architecture direction, and board-level technology reporting for a multi-tenant SaaS platform serving ~2M monthly active users and 700+ enterprise customers — leading 30 engineers across 6 countries (engineering, DevOps, QA, integrations) on a \$4.4M budget.
- Restructured a flat organization into subsystem-owned teams with clear accountability — senior engineers own their domains end to end, removing me as a decision bottleneck.
- Upgraded product and engineering leadership, promoting two managers to Director, and drove adoption of Agile practices that doubled delivery throughput.
- Set technical direction on platform scaling: re-tiered MySQL read replicas to control replica lag and enforced automated PR review with hard merge blocks.
- Held 99.9% uptime steady and cut load time 60% as load grew, on infrastructure that never pauses for deploys.
- Reduced cloud infrastructure spend by \$1.2M annually while improving resilience and operational visibility — replacing an underperforming internal DevOps function (promoting its manager to Director) with scalable external cloud and monitoring partners.
- Achieved SOC 2, GDPR, and EAA compliance while presenting roadmap, risk, and financial metrics to PE board stakeholders.

VP of Application Development, Site Impact

Jan 2024 – Sep 2024

AdTech platform modernization | Multi-region cloud architecture | Hybrid

- Turned around a stalled \$4.3M platform initiative after 2.5 years of missed deadlines — simplifying the architecture and resetting delivery.
- Rather than replace a struggling external team, redesigned the engagement model — lifting vendor productivity 7–10x and internal team productivity 2x.
- Cut projected infrastructure spend ~\$600K annually by replatforming core AdTech systems for multi-region resilience.
- Built and led engineering, DevOps, and SRE practices from the ground up — CI/CD, observability, incident readiness, and infrastructure-as-code.
- Managed global engineering delivery, vendor relationships, executive reporting, and a \$3.6M budget.

Founder & CTO, Edgy Nerd

2020 – 2024

Product engineering studio — AI, SaaS, fintech, cloud-native | Boca Raton

- Founded and led a product engineering studio focused on AI, SaaS, fintech, and cloud-native products; set technical direction and served as interim/fractional CTO for several clients.
- Built and scaled a nationally recognized AI diarization product (Koda / Imanyco) for the hearing-impaired.
- Delivered for clients including bundleIQ, Sustainabase, Hemp Temps, and TapIn.
- Owned product strategy, architecture, delivery, client relationships, budgets, and P&L across concurrent engagements.

Head Software Engineer, MyPhoto / Polaroid Photo Bar

Apr 2017 – Sep 2020

E-commerce and production automation | Computer vision and custom fulfillment systems | Delray Beach

- Rebuilt the e-commerce and fulfillment platform in under six months — PHP to Node.js, React, and cloud-native infrastructure.
- Increased conversion from 2% to 10% and cut bounce rate 50% via a full reflow, multi-cloud replatform, and an “instant upload” experience.
- Cut production time 66% by automating production with AI and computer vision.

Founder & CTO, Nebular Design

2011 – 2020

Product engineering studio | Boca Raton

- Founded and led a product engineering studio; owned technical direction, architecture, and delivery across concurrent client engagements.
- Designed and shipped platforms, apps, games, and digital experiences for clients including PBS Kids, AccuWeather, Ally Bank, and Sprint.
- Built an industry-leading SaaS photo-booth platform generating \$5M+ in revenue.
- Owned product strategy, architecture, delivery, budgets, and P&L across engagements.

Lead Software Engineer, MadValorem

Aug 2013 – Jun 2016

Real estate data platform rebuild | SEO-scale content automation and mapping systems | Delray Beach

- Rebuilt a stalled \$1.2M real estate data platform from .NET to LAMP.
- Solved a geospatial mapping problem that had blocked a 12-engineer team and stumped public dev forums.
- Built a content system generating structured descriptions for 600,000+ properties; earned a 33% equity stake.

TECHNICAL SCOPE

Leadership: org design, platform modernization at scale, board reporting, distributed teams, budgets/P&L, delivery systems

Cloud & Operations: AWS, GCP, Azure, Kubernetes, Terraform, DevOps, SRE, observability, cost optimization

Architecture: multi-tenant SaaS, Rails/Node systems, APIs, data platforms, security, CI/CD

AI & Data: LLM-enabled workflows, automation, analytics, data pipelines, computer vision

Platforms: SaaS, EdTech, AdTech, fintech, e-commerce

SELECTED WRITING AND RESEARCH

- Your Customers Don't Want Your AI Assistant (2026) — impactvelocity.studio
- Out of the Fish Tank (2026) — amazon.com/dp/B0H4766WZ9
- Commit — AI companion app for engineering managers (in development)
- The Least-Used but Most-Powerful Debugging Tool for Engineers (2025) — medium.com/@toddhalbert
- 7 Reasons Why Most Products Fail (2024) — medium.com/@toddhalbert

Peer-reviewed science (selected):

- Albert, T.H., et al. (2016). Northern Andes, in *Global Land Ice Measurement from Space* (ed. J. Kargel).
- Albert, T.H. (2010). Glaciers: Continental, in *Encyclopedia of Geography* (ed. B. L. Warf, Sage) — ALA “Outstanding Reference Source” award.
- Albert, T.H. (2002). Evaluation of remote sensing techniques for ice-area classification, Quelccaya Ice Cap, Peru. *Polar Geography*, 26(3), 210–226.

RANGE: SCIENTIST · EDUCATOR · AUTHOR

A non-linear path where each phase trained something I still use leading engineering.

Research Scientist — Ph.D.; NASA Graduate Research Fellow. NASA-/NOAA-funded glaciology and remote sensing, Greenland to the Peruvian Andes. Selected as a NASA scientific grant evaluator, judging competing national research proposals. Modeling systems too big to see at once → forensic incident and root-cause analysis; deciding where scarce funding should go → executive prioritization and investment judgment.

Educator & Founder — Created Tennessee's first Meteorology BA/BS; founded Boca Code; taught 2,500+ students and mentored hundreds of engineers → building, leveling, and growing engineering teams.

Author — *Out of the Fish Tank* (2026), turning dense historical research into a book a general reader finishes in a weekend → explaining complex systems to non-experts and stakeholders.

EDUCATION

Ph.D., Florida State University • M.S., The Ohio State University • B.S., University of Florida