

Todd H. Albert, Ph.D.

Engineering Executive who scales and hardens big systems and teams

30+ years Software • 15+ years Leadership (iD)

Boynton Beach, FL

toddalbert@gmail.com

[linkedin.com/in/toddalbert](https://www.linkedin.com/in/toddalbert)

github.com/toddalbert

medium.com/@toddalbert

Executive Profile

Engineering executive leading 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. Former NASA-funded research scientist, educator, founder, and author, with 15+ years leading engineering across SaaS, EdTech, AdTech, fintech, AI, and cloud infrastructure, including private-equity-backed transformation. NASA-selected research fellow and grant evaluator.

Signature Strengths

- 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

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

Oct 2024 – present

- Own engineering for a multi-tenant platform serving ~2M monthly active users and 700+ enterprise customers — leading 30 engineers across 6 countries spanning engineering, DevOps, QA, and integrations, on a \$4.4M budget.
- Held 99.9% uptime steady and reduce load time by 60% as load grew on infrastructure that never pauses for deploys.
- Reduced cloud infrastructure spend by **\$1.2M annually** while improving resilience, performance, and operational visibility.
- Achieved SOC 2, GDPR, and EAA compliance while presenting roadmap, risk, and financial metrics to PE board stakeholders.

VP of Application Development, Site Impact

AdTech platform modernization | Multi-region cloud architecture | Hybrid

Jan 2024 – Sep 2024

- Turned around a stalled \$4.3M platform initiative after 2.5 years of missed deadlines — simplifying the architecture, reducing technical ambiguity, and resetting team execution.
- 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, including CI/CD, observability, incident readiness, and infrastructure-as-code.
- Managed global engineering delivery, vendor relationships, executive reporting, and a \$3.6M budget.
- Partnered with senior leadership on quarterly business planning, board materials, operating metrics, and team performance systems.

Founder & CTO, Edgy Nerd

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

Jan 2015 – Feb 2024

- Founded and led a studio delivering AI, SaaS, fintech, and cloud products for clients across regulated and high-growth markets.
- Architected and shipped AI-powered applications, real-time payment systems, and analytics platforms across AWS, Azure, and GCP; built and scaled a nationally recognized AI diarization product.
- Delivered for clients and partners including PBS Kids, AccuWeather, Ally Bank, and Sprint.
- Owned product strategy, architecture, delivery, client relationships, budgets, and P&L across concurrent engagements.

Head Software Engineer, MyPhoto / Polaroid Photo Bar

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

Apr 2017 – Sep 2020

- 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 “instant upload” experience.
- **Cut production time 66%** by automating production with AI and computer vision.

Lead Software Engineer, MadValorem

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

Aug 2013 – Apr 2015

- 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, <https://impactvelocity.studio/notes/your-customers-dont-want-your-ai-assistant>

Out of the Fish Tank, 2026, <https://www.amazon.com/dp/B0H4766WZ9>

Commit — AI companion app for engineering managers, in development

The least-used but most-powerful debugging tool for engineers, 2025, <https://toddhalbert.medium.com/the-least-used-but-most-powerful-debugging-tool-for-engineers-77aec7cda226>

7 Reasons Why Most Products Fail, 2024, <https://toddhalbert.medium.com/7-reasons-why-most-products-fail-ef5ed8c17db8>

Peer-reviewed science (selected):

Albert, T.H., 2016, C. Huggel, A. Racoviteanu, Y. Arnaud, W. Silvero, and A. Klein, Northern Andes, in *Global Land Ice Measurement from Space*, edited by J. Kargel

Albert, T.H., 2010, Glaciers: Continental, in *Encyclopedia of Geography*, edited by B. L. Warf, Sage Publishing. **Winner of "Outstanding Reference Source" award by the American Library Association**

Albert, T.H., 2002, Evaluation of remote sensing techniques for ice-area classification applied to the tropical Quelccaya Ice Cap, Peru, *Polar Geography*, 26 (3), 210-226

Albert, T.H., 2008, Assessment of glacier mass balances from small tropical glaciers to the ice sheet of Greenland, VDM Verlag Dr. Mueller e.K., Saarbrücken, Germany, 160 pp

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 by NASA's **Mission to Planet Earth** program as a **scientific grant evaluator** — judging the merit and resource justification of competing national research proposals. Modeling systems too big to see at once → forensic rigor for incident and root-cause analysis. Deciding where scarce funding and effort 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.

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