

Todd H. Albert, Ph.D.

Strategic Engineering Leader

30+ years Coding • 15+ years Leadership (iD) • 20+ years Academia

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Executive Summary

Visionary technology leader with a proven record of architecting and scaling resilient, secure, performant, and high-availability cloud platforms for global organizations. Adept at driving digital transformation, building and mentoring high-performing distributed teams, and delivering innovative solutions in regulated, high-growth environments. Hands-on with AWS, GCP, Azure, Kubernetes, SRE, DevOps, IaC, and cost optimization. Trusted executive partner skilled at aligning tech strategy with business goals with deep experience in the Physical Sciences and Education.

Professional Experience (selected)

VP of Engineering

CYPHER Learning, Plano, TX (Remote)

Oct 2024 – present

- Spearheaded cloud modernization and Agile transformation for a global SaaS learning platform, integrating AI and automation across all business units
- Led a distributed team of 32+ across engineering, DevOps, QA, and integration, managing a \$4.4M budget driving the transformation to Agile practices
- Drove cloud infrastructure optimization and cost reduction initiatives, boosting performance and resilience at scale and reducing spend by over \$1.2M/yr
- Presented quarterly technology roadmaps, progress, and financial metrics to the Private Equity board of directors, translating tech vision into business impact and operational efficiency
- Instituted real-time data insights and end-to-end security, aligning with regulatory standards (e.g. SOC-2, GDPR, EAA)

VP of Application Development

Site Impact, Coconut Creek, FL (Hybrid)

Jan 2024 – Sep 2024

- Architected and launched a highly scalable, cloud-native AdTech platform, supporting billions in projected revenue and high transaction volumes
- Replatformed core systems for multi-region availability, leveraging AWS, GCP, and Azure saving an estimated \$600k/yr
- Built and led a world-class engineering team, instilling SRE and DevOps best practices, CI/CD automation, and observability from the ground up
- Revitalized a stalled \$4.3M project, delivering it successfully after 2.5 years of missed deadlines by re-architecting the platform, simplifying the tech stack, and improving team processes
- Managed global and cross-functional teams, vendor relationships, and a \$3.6M budget
- Championed adoption of Infrastructure-as-Code, GitOps, and automated deployment pipelines
- Created and presented Board Decks quarterly, took part in quarterly executive business and strategy plannings, presented at quarterly Town Halls, created and monitored SMART goals for my direct reports, held 1-on-1 meetings with reports, responsible for communication up and down chain, and participated in **Senior Leadership Training and Assessments** (I'm an iD; DiSC Assessment available upon request)

CTO

Tap•In, Boca Raton, FL (Hybrid)

Jan 2024 – present

- Oversaw and led in-house and off-shore development teams
- Architected and launched a highly scalable, cloud-native networking platform designed for multi-region availability

Interim CTO

Hemp Temps, Lighthouse Point, FL (Hybrid)

Oct 2023 – Jan 2024

- Recruited and hired a team of engineers, coded, and lead the initial development and product design of the staffing and learning platform
- Recruited the full-time CTO

CTO

Edgy Nerd, Boca Raton, FL

Jan 2020 – Feb 2024

- Led architecture and development for AI-powered SaaS and fintech platforms, including real-time payment processing and analytics across AWS, Azure, and GCP for a diverse client base
- Designed cloud solutions for regulated industries, ensuring uptime, compliance, and security
- Engineered and scaled a nationally recognized AI diarization application, demonstrating expertise in building resilient and performant AI-driven platforms
- Built and managed multiple high-performing teams, overseeing project delivery, client relations, and P&L
- Implemented and managed CI/CD pipelines, ensuring rapid and reliable software delivery

Head Software Engineer

MyPhoto (Polaroid Photo Bar), Delray Beach, FL

Apr 2017 – Sep 2020

- Led architecture, data engineering, design, development, cloud architecture, integrating CI/CD pipelines, security, and deployment of a custom e-commerce platform in under 6 months; led transformation from PHP to Node.js and React
- Migrated to multi-cloud infrastructure with industry-leading performance while increasing conversion rate from 2 to 10% and cut bounce rate in half
- Automated production processes to cut production time by 66% and increase productivity 10x using AI and computer vision technology built with Python, React-Native, and Electron
- Invented “instant upload” technology to speed up and enhance user experience

CTO

Nebular Agency, Boca Raton, FL

May 2015 – Apr 2017

- Managed up to 7 concurrent projects and teams, architecting and delivering solutions for enterprise clients including PBS Kids, AccuWeather, Ally Bank, and Sprint
- Launched major projects across AWS, GCP, and Azure, leading the migration of key platforms from AWS to GCP to optimize performance and cost
- Developed an industry-leading AI and AR-enabled mobile photobooth platform with over \$5M in SaaS revenue

Lead Software Engineer

MadValorem, Delray Beach, FL

Aug 2013 – Apr 2015

- Rebuilt \$1.2M platform from scratch, migrating to LAMP stack from .NET in weeks 2 and 3 weeks of employment
- Solved a mapping issue that 12 engineers couldn't solve and that had remained unsolved in both Google Group discussions and on StackOverflow in weeks 5 and 6 of employment
- Built a deterministic AI model to create descriptions of over 600,000 properties, developments, neighborhoods, cities, counties, and states
- Developed a dynamic system to rank in the top 10 on Google for every property-related professional (e.g. realtor, plumber, electrician, etc.) in each city in Florida
- Was granted 33% share of company by the CEO
- Reported directly to CEO

Head of Meteorology Program

University of Tennessee at Martin, Martin, TN

Aug 2010 – May 2013

- Developed the first Meteorology BA and BS programs in the state and got approved by department, college, university, and board within my first 4 months
- Recruited students, developed and taught curriculum for most courses, and assigned schedules to other senior faculty
- Advised students, even helping several to be placed in graduate programs, at the National Weather Service, and doing research for NASA and was faculty advisor for the newly-formed Meteorology Club

Scientific Grant Evaluator

NASA, Mission to Planet Earth, Washington, DC

Jan 2008 – Dec 2010

- Evaluated scientific grants to help decide which to fund

Instructor

Bowling Green State University, Bowling Green, OH

Aug 2007 – May 2010

- Taught over 2500 students
- Recruited 70 new majors in my first year increasing major enrollment by 7x and helping the department avoid being cut, saving the jobs of 10 faculty
- Advised students and was faculty advisor for the newly-formed Geography Club

Adjunct Instructor

Tallahassee Community College, Tallahassee, FL

Aug 2004 – May 2007

Lead Teacher and Science Coordinator

Cornerstone Learning Community, Tallahassee, FL

Aug 2004 – May 2007

- Developed 3-year wheel curriculum for Math, Science, and Social Studies
- Taught and mentored students (and was DJ for school events)
- Developed custom software to handle grade reporting for the entire school

Education

Florida State University, **Ph.D.**

May 2007

University of Colorado, **NASA Research Fellow**

Aug 2001 – Aug 2004

The Ohio State University, **M.S.**

Dec 2000

University of Florida, **B.S.**

May 1998

Grants and Awards (selected)

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| NSF TN-SCORE, <i>Co-Principal Investigator</i> | 2011 |
| UTM Center for Excellence, <i>Co-Principal Investigator</i> | 2010 |
| West-Tennessee Mesonet, <i>Co-Principal Investigator</i> | 2009 |
| CIRES Innovative Research Grant, <i>Co-Principal Investigator</i> | 2002 – 2003 |
| NASA Graduate Research Fellowship, <i>Principal Investigator</i> | 2001 – 2004 |

Skills (selected)

Programming: JavaScript, Node, TypeScript, PHP, C#, Objective-C, Swift, Python, C++, Java, Rust, Solidity

Frameworks: React, Next, React Native, Tailwind CSS, Express, Unity, Electron, Expo, Vue

Database Design and Management: MySQL, PostgreSQL, SQL, Mongo, Firestore, Snowflake, BigQuery, Pinecone

Cloud Systems: AWS, Google Cloud Platform, Azure, Firebase, Serverless, Terraform, CloudFormation, Git, Docker, Kubernetes

Other Technologies: AI, Virtual Reality, Augmented Reality, GIS, Arc, PostGIS, ENVI

Civic Leadership (selected)

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| Bootcamp Subcommittee Chair and Tech Talent and Education Committee Board, South Florida Tech Hub | 2020 – 2024 |
| Judging and Coaching at several Hackathons (e.g. Office Depot, Palm Beach Tech) | 2017 – 2025 |
| Sponsor, Volunteer, and Speaker for local tech groups (e.g. Florida JS, Girl Develop It, Boca JS, Nerd Night) | 2016 – 2025 |
| Future of Reelfoot Lake Faculty Advisory Committee, University of Tennessee at Martin | 2010 – 2012 |
| College Teaching Effectiveness Committee, University of Tennessee at Martin | 2010 |
| Departmental Travel Funds Committee, University of Tennessee at Martin | 2010 |
| Head of the Meteorology Program, University of Tennessee at Martin | 2009 – 2012 |
| GIS Certificate Faculty Committee, University of Tennessee at Martin | 2009 – 2012 |
| Departmental Web-development Committee, University of Tennessee at Martin | 2009 – 2012 |
| Undergraduate Advisor, Meteorology and Geography, University of Tennessee at Martin | 2009 – 2012 |

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| Faculty Advisor, GeoClub, University of Tennessee at Martin | 2009 – 2012 |
| Undergraduate co-advisor, Department of Geography, Bowling Green State University | 2008 – 2009 |
| Faculty Advisor, Geography Club, Bowling Green State University | 2007 – 2009 |
| Active Learning in the Natural Sciences Learning Community, Bowling Green State Univ. | 2007 – 2008 |
| New Faculty Learning Community, Bowling Green State University | 2007 – 2008 |

Publications (selected)

- Albert, T.H., 2026, Beyond the Hype: Building AI Tools Your Users Will Actually Want to Use, <https://toddhalbert.medium.com/beyond-the-hype-building-ai-tools-your-users-will-actually-want-to-use-216a3826946b>
- Albert, T.H., 2025, How to get the best MacBang for the MacBuck, <https://toddhalbert.medium.com/how-to-get-the-best-macbang-for-the-macbuck-71aecf14f549>
- Albert, T.H., 2025, The least-used but most-powerful debugging tool for engineers, <https://toddhalbert.medium.com/the-least-used-but-most-powerful-debugging-tool-for-engineers-77aec7cda226>
- Albert, T.H., 2024, 7 Reasons Why Most Products Fail, <https://toddhalbert.medium.com/7-reasons-why-most-products-fail-ef5ed8c17db8>
- Albert, T.H., 2024, Beauty is in the AI of the beholder, <https://toddhalbert.medium.com/beauty-is-in-the-ai-of-the-beholder-0c15c7ee4dae>
- Albert, T.H., 2023, As a new artform emerges, one artist rises to the top, <https://toddhalbert.medium.com/as-a-new-artform-emerges-one-artist-rises-to-the-top-af7accfa788b>
- Albert, T.H., 2021, Deploying an Express API to Google App Engine, <https://medium.com/boca-code/deploying-an-express-api-to-google-app-engine-ac7a188c6608>
- Albert, T.H., 2021, Deploying an Express API on Firebase Hosting, <https://medium.com/boca-code/the-basic-process-is-that-we-will-use-firebase-cloud-functions-to-create-a-single-function-app-13ba3b852077>
- Albert, T.H., 2021, Creating an Express API Step-by-step, <https://medium.com/boca-code/creating-an-express-api-step-by-step-cb7b9aab7b6>
- Albert, T.H., 2021, Why does talent leave South Florida, <https://medium.com/boca-code/why-does-talent-leave-south-florida-b7cbc5339e83>
- Albert, T.H., 2021, When to fire a client, <https://toddhalbert.medium.com/when-to-fire-a-client-9c56989d98f3>
- Albert, T.H., 2021, Women in Tech, <https://medium.com/boca-code/women-in-tech-49861db01e82>
- Albert, T.H., 2021, Frustrating loops, <https://toddhalbert.medium.com/frustrating-loops-a3d3df84415b>
- Albert, T.H., 2021, The scary leap of changing careers, <https://toddhalbert.medium.com/the-scary-leap-of-changing-careers-11dd29c488f5>
- Albert, T.H., 2021, Pumped! Scholarship Awards, <https://toddhalbert.medium.com/pumped-scholarship-awards-7c2b78d87e17>
- Albert, T.H., 2021, Our first cohort – reflecting on the last 10 weeks... and 15 months, <https://medium.com/boca-code/our-first-cohort-reflecting-on-the-last-10-weeks-and-15-months-17118552ab6c>
- Albert, T.H., 2021, More jobs than coders – Boca Code rises to the challenge, <https://toddhalbert.medium.com/more-jobs-than-coders-boca-code-rises-to-the-challenge-fc75e1b47802>
- Albert, T.H., 2021, No, Alexa is not listening to you, <https://toddhalbert.medium.com/no-alexa-is-not-listening-to-you-2b173519996b>
- Albert, T.H., 2020, Why I Switched from Kubernetes to Firebase Hosting, <https://toddhalbert.medium.com/why-i-switched-from-kubernetes-to-firebase-hosting-ae1fdac62439>
- Albert, T.H., 2018, The Online Dating Algorithm, <https://medium.com/nebular-agency/the-online-dating-algorithm-38a7f63bb8f1>

Peer Reviewed (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..
- Albert, T.H., 2007, Assessment of glacier mass balances from small tropical glaciers to the large ice sheet of Greenland, Ph.D. Dissertation, Florida State University, Tallahassee, Florida.
- Albert, T.H., 2004, Measuring and modeling surface height changes on the Greenland ice sheet: Pâkitsoq ablation zone, west-central Greenland, pp. 37, University of Colorado, Boulder, Colorado.
- Steffen, K., N. Cullen, R. Huff, S. Starkweather, T.H. Albert, and M. McAllister, 2004, Variability and forcing of climate parameters on the Greenland Ice Sheet: Greenland Climate Network (GC Net), pp. 30, University of Colorado, Boulder.
- Steffen, K., N. Cullen, R. Huff, S. Starkweather, and T.H. Albert, 2003, Variability and forcing of climate parameters on the Greenland ice sheet: Greenland Climate Network (GC-Net), pp. 29, University of Colorado, Boulder.
- Albert, T.H., 2002, A high-resolution ablation study near Illulisat (Jakobshavn) on the Greenland Ice Sheet, pp. 10, University of Colorado, Boulder, Colorado.
- Steffen, K., J.E. Box, N. Cullen, and T.H. Albert, 2002, Variability and forcing of climate parameters on the Greenland Ice Sheet: Greenland Climate Network (GC Net), pp. 22, University of Colorado, Boulder.
- Steffen, K., J.E. Box, N. Cullen, and T.H. Albert, 2002, Greenland ice sheet climatology and surface energy balance modeling: Greenland climate network (GC-Net), pp. 24, University of Colorado, Boulder.
- Albert, T.H., 2000, Investigations of the recent changes on the tropical Quelccaya Ice Cap, Peru, Masters thesis, Ohio State University, Columbus, Ohio.