Todd H. Albert, Ph.D.
VP of Application Development
30+ years Coding • 15+ years Leadership (iD) • 20+ years Data Science, AI, ML • 20+ years Game Dev • 7+ years Blockchain
Boca Raton, FL

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Professional Experience

VP of Application Development   Jan 2024 – Sep 2024
Site Impact, Coconut Creek, FL
• Oversaw and led in-house and off-shore development teams, Data Science team, QA team, external DevOps and DevSecOps team, contractors, vendors with a $3.6M annual budget
• 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)
• Reworked process with off-shore team to increase velocity by almost 5x saving the company an estimated $2.7M; also doubled our internal velocity.
• Developed, along with product, a process to go from idea to epic to production
• Presented new ways to utilize AI in our company, both for our clients and internal communication and planning
• Led architecture of platforms, AI model development, for end-to-end SaaS platform for Ad Management, placement, in-flight management, AI-based smart proposals, and reporting and analytics with an expected $50M revenue by 2026
• Brought project on track after 2 ½ years of failed deadlines and 4 launch failures saving an estimated $4.3M project cost
• Simplified architecture resulting in lower cloud bill, simpler developer experience, easier maintenance, and less reliance on 3rd party, also saving an estimated $600k/yr

VP of Engineering   Jan 2020 – Feb 2024
Edgy Nerd, Boca Raton, FL
• Product Lead, Sales, Architect, Data Engineer, and Principal Software Engineer
• Simultaneously managed multiple teams, projects, client-relations, payments, **all while coding on multiple projects / teams myself**
• Led architecture, data engineering, and development of a nationally-recognized **AI diarization app** for the Deaf and Hard-of-Hearing Community
• Built custom P2E **Web3**-enabled VR game in 3 months, innovating new way to change **NFT** attributes via gameplay with staking and smart contracts
• Utilized **Gen AI** to create tens of thousands of iterations of NFT artwork for multiple **Web3** projects
• Led a team to design, develop, and launch a fully-accessible mobile dating application, including authentication, subscription-based payment processing, **Gen AI** text to speech, speech to text, and image to text capabilities, real-time text-based chat and telephony, proprietary **AI personality matching** using vector search, and push-based notification system
• Led product design, development, and architecture of two mobile photography apps with Sony, Muñoz Photography, and LVL Up Imaging
• Additional clients included: Honest Poker [Web3], Women Helping Women [Web3], MyPhoto [e-commerce], Premier Virtual [web], Frenchie Ballers [Web3, VR, web], Koda / Imanyco [AI, payments, web], Imagynate [mobile, AI], RaiseLink [AI, web], Magic City Cup [mobile], RentBunny [mobile]

Interim CTO and Lead Engineer   Oct 2023 – Jan 2024
Hemp Temps, Lighthouse Point, FL
• Recruited and hired a team of engineers and lead the initial development and product design of the staffing and learning platform for the cannabis industry
• Recruited the full-time CTO

CTO and Lead Engineer   Jan 2020 – Oct 2023
Boca Code, Boca Raton, FL
• Issued 300 certificates including 150 new software engineers with a 90% placement rate and over $30k average increase in salary per graduate
• Lead courses and created curriculum for Software Engineering, Game Development with AR and VR, React, Node.js, Data Science, Machine Learning, and AI including building and training LLM models using NLP
• Led transformation of public website and internal software to Next.js and Tailwind in under 24 hours each

Head Software Engineer   Apr 2017 – Sep 2020
MyPhoto (Polaroid Photo Bar), Delray Beach, FL
• Led architecture, data engineering, design, development, 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 and Head Software Engineer   May 2015 – Apr 2017
Nebular Agency, Boca Raton, FL
• Simultaneously managed up to 7 teams, up to 7 projects, helped close sales, estimation and quoting, **all while coding on multiple projects / teams myself**
• Designed and developed software platforms, games, apps, and experiences for: PBS Kids [Flash, Game Dev], AES [AR, mobile], AccuWeather [AI, mobile], Ally Bank [mobile, Game Dev], Barefoot Wine [3D, mobile], Crypto Exchange [web3], Fiat [3D, mobile], JetRide [web], Magna [mobile, 3D], Sprint [mobile, security, AI], CIRES [mobile], BGSU [web], WallKeepers [mobile, AR], Eight O'Clock Coffee [AR, mobile], BenTek [web, AI], Mack Industrial [AI, web], the field, Source Marketing, Quote Logic [AI, web, automation], Modern Promos, Sun Country Airlines [AI, web], George P Johnson, EEI, Amway, and dozens more
• Developed the industry-leading AI and AR-enabled mobile Photo booth platform with over $5M SaaS revenue

Lead Software Engineer   Aug 2012 – May 2015
MadValorem, Boynton Beach, FL
• Single-handedly rebuilt $1.5M platform and infrastructure in first 3 weeks, cutting cloud costs by over 90% and increasing speeds by 20x
• Solved complex mapping issue by week 5 that 12 other engineers failed to solve
• Automated development of millions of professional profiles and property pages using **AI**, specifically **GenAI**, **NLP** and **LLM**; pages each ranked in top 3 Google search results, enabling our sales team to win 90% of sales
• Invented **NLP AI** process for call center leads which increased conversion from 40% to 97%

Instructor   Jun 2012 – Aug 2012
University of Miami

Head of Meteorology Program   Aug 2009 – May 2012
University of Tennessee at Martin
• Developed first Meteorology BA and BS programs in the state and got curriculum approved at state level in first semester

Scientific Grant Evaluator   Jan 2008 – Dec 2010
NASA, Washington, DC
• Served on a committee to evaluate grants for scientific merit and contribution and voted on which grants were funded

Instructor   Aug 2007 – May 2009
Bowling Green State University, Bowling Green, OH
• Increased number of majors in the department from 8 to over 80 in first year
• Designed and developed Software for Department and Departmental Webpages

Adjunct Instructor   Aug 2004 – May 2007
Tallahassee Community College, Tallahassee, FL

Lead Teacher and Science Coordinator   Aug 2004 – May 2007
Cornerstone Learning Community, Tallahassee, FL

Research Fellow   Jun 2001 – May 2004
CIRES, University of Colorado, Boulder, CO
• Designed, engineered, built, programmed, and installed "Smart Stake" autonomous surface monitoring stations for NASA and deployed and maintained along
     with the Greenland Climate Network (GC-Net) of Autonomous Weather Stations (AWS) for NASA on the Western slope of the Greenland Ice Sheet
• Designed and developed a "Smart Kiosk" for CIRES in collaboration with with NOAA and the University of Colorado using Flash and ActionScript

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)

Golden Palm Award Nominee (2 categories)   2023
Venture Appreciation Night Award   2023
Outstanding Reference Source, *American Library Association*   2011
NSF TN-SCORE, *Co-Principal Investigator*   2011
UTM Center for Excellence, *Co-Principal Investigator*   2010
West-Tennessee Mesonet, *Co-Principal Investigator*   2009
CIRES Innovative Research Grant, *Co-Principal Investigator*   2002 – 2003
NASA Graduate Research Fellowship, *Principal Investigator*   2001 – 2004

Leadership and Service (selected)

SoFlo Dev Con Organization Committee, *South Florida Tech Hub*   2024
Mentor, *FAU Tech Runway*   2024
Interim CTO and Advisor, *BundleIQ*   2021 – 2023
Tech Talent and Education Committee Board, *South Florida Tech Hub*   2020 – present
Bootcamp Subcommittee Chair, *South Florida Tech Hub*   2020 – 2024
Hackathon Organizer, Judge, and Coach   2017 – present
Future of Reelfoot Lake Faculty Advisory Committee   2010 – 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
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

Publications (selected)

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, <u>Women in Tech</u>, *https://medium.com/boca-code/women-in-tech-49861db01e82*

Albert, T.H., 2021, <u>Frustrating loops</u>, *https://toddhalbert.medium.com/frustrating-loops-a3d3df84415b*

Albert, T.H., 2021, <u>The scary leap of changing careers</u>, *https://toddhalbert.medium.com/the-scary-leap-of-changing-careers-11dd29c488f5*

Albert, T.H., 2021, <u>Pumped! Scholarship Awards</u>, *https://toddhalbert.medium.com/pumped-scholarship-awards-7c2b78d87e17*

Albert, T.H., 2021, <u>Our first cohort – reflecting on the last 10 weeks… and 15 months</u>, *https://medium.com/boca-code/our-first-cohort-reflecting-on-the-last-10-weeks-and-15-months-17118552ab6c*

Albert, T.H., 2021, <u>More jobs than coders — Boca Code rises to the challenge</u>, *https://toddhalbert.medium.com/more-jobs-than-coders-boca-code-rises-to-the-challenge-fc75e1b47802*

Albert, T.H., 2021, <u>No, Alexa is not listening to you</u>, *https://toddhalbert.medium.com/no-alexa-is-not-listening-to-you-2b173519996b*

Albert, T.H., 2020, <u>Why I Switched from Kubernetes to Firebase Hosting</u>, *https://toddhalbert.medium.com/why-i-switched-from-kubernetes-to-firebase-hosting-ae1fdac62439*

Albert, T.H., 2018, <u>The Online Dating Algorithm</u>, *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, <u>Northern Andes</u>, in Global Land Ice Measurement from Space, edited by J. Kargel

Albert, T.H., 2010, <u>Glaciers: Continental</u>, 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, <u>Evaluation of remote sensing techniques for ice-area classification applied to the tropical Quelccaya Ice Cap, Peru</u>, *Polar Geography*, 26 (3), 210-226.

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

Albert, T.H., 2007, <u>Assessment of glacier mass balances from small tropical glaciers to the large ice sheet of Greenland</u>, Ph.D. Dissertation, Florida State University, Tallahassee, Florida.

Albert, T.H., 2004, <u>Measuring and modeling surface height changes on the Greenland ice sheet: Pâkitsoq ablation zone, west-central Greenland</u>, pp. 37, University of Colorado, Boulder, Colorado.

Steffen, K., N. Cullen, R. Huff, S. Starkweather, T.H. Albert, and M. McAllister, 2004, <u>Variability and forcing of climate parameters on the Greenland Ice Sheet: Greenland Climate Network (GC Net)</u>, pp. 30, University of Colorado, Boulder.

Steffen, K., N. Cullen, R. Huff, S. Starkweather, and T.H. Albert, 2003, <u>Variability and forcing of climate parameters on the Greenland ice sheet: Greenland Climate Network (GC-Net)</u>, pp. 29, University of Colorado, Boulder.

Albert, T.H., 2002, <u>A high-resolution ablation study near Illulisat (Jakobshavn) on the Greenland Ice Sheet</u>, pp. 10, University of Colorado, Boulder, Colorado.

Steffen, K., J.E. Box, N. Cullen, and T.H. Albert, 2002, <u>Variability and forcing of climate parameters on the Greenland Ice Sheet: Greenland Climate Network (GC Net)</u>, pp. 22, University of Colorado, Boulder.

Steffen, K., J.E. Box, N. Cullen, and T.H. Albert, 2002, <u>Greenland ice sheet climatology and surface energy balance modeling: Greenland climate network (GC-Net)</u>, pp. 24, University of Colorado, Boulder.

Albert, T.H., 2000, <u>Investigations of the recent changes on the tropical Quelccaya Ice Cap, Peru</u>, Masters thesis, Ohio State University, Columbus, Ohio.

Skills (selected)

- Agile
- AI
- Arc
- Augmented Reality
- Automation
- AWS
- Azure
- Bash
- Blockchain
- C#
- C++
- Cloud Engineering
- CloudFormation
- Data Analytics
- Docker
- Elastic Search
- Electron
- Expo
- Express
- Firebase
- Firestore
- Game Development
- GIS
- Git
- Google Cloud Platform (GCP)
- Java
- JavaScript
- Laravel
- ML
- Mongo
- MySQL
- .Net
- NFTs
- Node.js
- Next.js
- Objective-C
- PHP
- PostGIS
- PostgreSQL
- Product Leadership
- Project Architect
- Python
- React
- React Native
- Redis
- Rust
- Serverless
- Smart Contracts
- Solidity
- SQL
- SQLite
- Swift
- Systems Engineering
- Tailwind CSS
- Terraform
- TypeScript
- Unity
- Virtual Reality
- Vue
- Web3