

# Todd H. Albert, Ph.D.

Tech Leader and Software Engineer – 30+ years Coding – 15+ years Leadership (iD) – 20+ years Data Science, AI, ML

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## Professional Experience

### VP of Application Development, Site Impact, *Coconut Creek, FL*

2024 – present

- Oversee and lead 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.
- Reworked process with off-shore team to increase velocity by almost 5x saving the company an estimated \$2.7M which also doubled our internal velocity.
- Lead 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 \$1.6M 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, Edgy Nerd, *Boca Raton, FL*

2020 – 2024

- Product Lead, Sales, Architect, Data Engineer, and Principal Software Engineer
- Led architecture, data engineering, and development of a nationally-recognized AI app for the Deaf and Hard-of-Hearing Community
- Built custom P2E VR game in 3 months, innovating new way to change NFT attributes via gameplay
- Selected Clients: MyPhoto, Premier Virtual, Frenchie Ballers (Web3), Koda / Imanyco (AI), Imagynate, RaiseLink (AI), Magic City Cup, RentBunny
- Led a team to design, develop, and launch a fully-accessible mobile dating application, including authentication, subscription-based payment processing, 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

### Interim CTO and Lead Engineer, Hemp Temps, *Lighthouse Point, FL*

2023 – 2024

- 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, Boca Code, *Boca Raton, FL*

2020 – 2023

- Issued 300 certificates including 150 new software engineers with a 90% placement rate and over \$30k average increase in salary per graduate
- Led transformation of public website and internal software to Next.js and Tailwind in under 24 hours each

### Head Software Engineer, MyPhoto (Polaroid Photo Bar), *Delray Beach, FL*

2017 – 2020

- 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

### CTO and Head Software Engineer, Nebular Agency, *Boca Raton, FL*

2015 – 2017

- Designed and developed software platforms, games, apps, and experiences for: PBS Kids, AES, AccuWeather Ally Bank, Barefoot Wine, Fiat, JetRide, Magna, Sprint, CIRES, BGSU, Jetride, WallKeepers, Eight O'Clock Coffee, BenTek, Mack Industrial, the field, Source Marketing, Quote Logic, Modern Promos, Sun Country Airlines, George P Johnson, EEL, Amway, and dozens more
- Developed the industry-leading Photo booth platform with over \$5M SaaS revenue

### Lead Software Engineer, MadValorem, *Boynton Beach, FL*

2012 – 2015

- 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 which each ranked in top 3 Google search results
- Invented process which increased lead conversion from 40% to 97%

### Head of Meteorology Program, University of Tennessee at Martin, *Martin, TN*

2009 – 2012

- Developed first Meteorology BA and BS programs in the state and got curriculum approved at state level in first semester

### Scientific Grant Evaluator, Mission to Planet Earth, NASA, *Washington, DC*

2008 – 2010

- Served on a committee to evaluate grants for scientific merit and contribution and voted on which grants were funded

### Instructor, Bowling Green State University, *Bowling Green, OH*

2007 – 2009

- Increased number of majors in the department from 8 to over 80 in first year
- Designed and developed Software for Department and Departmental Webpages

## Education

### Florida State University, Tallahassee, FL

2005 – 2007

*Ph.D., Department of Geography*

### University of Colorado, Boulder, CO

2000 – 2005

*NASA Research Fellow, Department of Geography and CIRES*

### The Ohio State University, Columbus, OH

1998 – 2000

*M.S., Atmospheric Sciences, Department of Geography and Byrd Polar Research Center*

### University of Florida, Gainesville, FL

1993 – 1998

*B.S., Geography, Department of Geography*

## Skills (selected)

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

## Grants and Awards (selected)

Golden Palm Award Nominee (2 categories), <i>South Florida Tech Hub</i>	2023
Venture Appreciation Night Award, <i>South Florida Tech Hub</i>	2023
Outstanding Reference Source, <i>American Library Association</i>	2011
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

## Leadership (selected)

SoFlo Dev Con Organization Committee, <i>South Florida Tech Hub</i>	2024
Mentor, <i>FAU Tech Runway</i>	2023 – present
Interim CTO, <i>Hemp Temps</i>	2023
Interim CTO and Advisor, <i>BundleIQ</i>	2021 – 2023
Tech Talent and Education Committee Board, <i>South Florida Tech Hub</i>	2020 – present
Bootcamp Subcommittee Chair, <i>South Florida Tech Hub</i>	2020 – 2024
Hackathon Organizer, Judge, and Coach (e.g. Office Depot, Palm Beach Tech)	2017 – present
Sponsor, Volunteer, and Speaker for local tech groups (e.g. Florida JS, Girl Develop It, Boca JS, Nerd Night)	2016 – present
Future of Reelfoot Lake Faculty Advisory Committee, <i>University of Tennessee at Martin</i>	2010 – 2012
Head of the Meteorology Program, <i>University of Tennessee at Martin</i>	2009 – 2012
GIS Certificate Faculty Committee, <i>University of Tennessee at Martin</i>	2009 – 2012
Departmental Web-development Committee, <i>University of Tennessee at Martin</i>	2009 – 2012
Undergraduate Advisor, Meteorology and Geography, <i>University of Tennessee at Martin</i>	2009 – 2012
Faculty Advisor, GeoClub, <i>University of Tennessee at Martin</i>	2009 – 2012
Undergraduate co-advisor, Department of Geography, <i>Bowling Green State University</i>	2008 – 2009
Faculty Advisor, Geography Club, <i>Bowling Green State University</i>	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, 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., 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.
- Albert, T.H., 2002, A high-resolution ablation study near Illulisat (Jakobshavn) on the Greenland Ice Sheet, pp. 10, University of Colorado, Boulder, Colorado.