

# 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

*Site Impact, Coconut Creek, FL*

Jan 2024 – Sep 2024

**80% leadership / 20% coding**

- 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
- **Single-handedly designed, coded, and deployed** initial data pipeline for Data Science team
- 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

*Edgy Nerd, Boca Raton, FL*

Jan 2020 – Feb 2024

**30% leadership / 70% coding**

- Product Lead, Sales, Architect, Data Engineer, and Principal Software Engineer; **coded every day**
- 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, security, cloud infrastructure using Azure, AWS, and GCP, versioning, integrating CI/CD pipelines, 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

*Hemp Temps, Lighthouse Point, FL*

Oct 2023 – Jan 2024

**20% leadership / 80% coding**

- 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 and Lead Engineer

*Boca Code, Boca Raton, FL*

Jan 2020 – Oct 2023

**40% teaching / 10% leadership / 50% coding**

- 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

*MyPhoto (Polaroid Photo Bar), Delray Beach, FL*

Apr 2017 – Sep 2020

**20% leadership / 80% coding**

- 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; **coded every day**
- 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

*Nebular Agency, Boca Raton, FL*

May 2015 – Apr 2017

**30% leadership / 70% coding**

- 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
- Launched major projects across AWS, GCP, and Azure with integrated CI/CD pipelines and transformed major projects from AWS to GCP

## Lead Software Engineer

*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%

Aug 2012 – May 2015

**10% leadership / 90% coding**

## Instructor

*University of Miami*

Jun 2012 – Aug 2012

## Head of Meteorology Program

*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

Aug 2009 – May 2012

## Scientific Grant Evaluator

*NASA, Washington, DC*

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

Jan 2008 – Dec 2010

## Instructor

*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

Aug 2007 – May 2009

## 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

## Research Fellow

*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

Jun 2001 – May 2004

## Education

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

University of Colorado, **NASA Research Fellow**

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

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

May 2007

Aug 2001 – Aug 2004

Dec 2000

May 1998

## 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

## Grants and Awards (selected)

Golden Palm Award Nominee (2 categories)

Venture Appreciation Night Award

Outstanding Reference Source, *American Library Association*

NSF TN-SCORE, *Co-Principal Investigator*

UTM Center for Excellence, *Co-Principal Investigator*

West-Tennessee Mesonet, *Co-Principal Investigator*

CIRES Innovative Research Grant, *Co-Principal Investigator*

NASA Graduate Research Fellowship, *Principal Investigator*

2023

2023

2011

2011

2010

2009

2002 – 2003

2001 – 2004

## Leadership and Service (selected)

SoFlo Dev Con Organization Committee, <i>South Florida Tech Hub</i>	2024
Mentor, <i>FAU Tech Runway</i>	2024
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	2017 – present
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

## 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., 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.