



# RYAN ZERNACH AI / ML / Mobile App Engineer (Full-Stack)

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## HIGHLIGHTS

- Strategic full-stack engineer w/ 10+ years of experience: Mobile Apps, Python, React, AI, LLMOps, MLOps, DevOps
- Shipped front-end & back-end of CellarChat™ to 1M+ members: fine-tuning, tool-calling, and evaluation pipelines
- Completed AI Engineering Fellowship at Gauntlet AI (Top 2% of applicants) to expand my arsenal of AI strategies
- Awarded Top 10 of 10,000 Global Projects (Top 0.1%) with AI Voice Assistant: 2024 NASA Space Apps Challenge
- Boosted mobile app ratings to 4.9★ (10k+ reviews) and lifted recurring revenue by 25%+ with Apple Pay subs
- Created customized dashboards for marketing automations, database admins, and executive observability
- Taught hundreds of students about low-latency ML endpoints and zero-downtime PostgreSQL migrations

## TECH STACK

- LLMops / RAG / MCP / Voice Agents / Evaluations
- LangChain / GenAI / OpenAPI / Semantic Kernel
- Machine Learning Pipelines / Computer Vision
- Python / PyTorch / PySpark / ETL / TensorFlow
- Cloudflare / AWS / Azure / GCP / SecurityOps
- DevOps / Docker / Kubernetes / Terraform
- Vector Databases / SQL / GraphQL / NoSQL
- Git / Bash / Cursor / Claude / Orchestration
- React Native / iOS / Android / Swift / Kotlin / Expo
- TypeScript / React / Redux / Node / Next / Streamlit
- Distributed Queues / RabbitMQ / SQS / Cron Jobs
- Webhooks / WebSockets / FastAPI / Express / Rust
- IMAP / SMTP / Email Templates / Push Notifications
- Apple Pay / Subscriptions / Payouts / IAP Webhooks
- SEO / Marketing Automations / Campaign Attribution
- Systems Observability / Analytics / Admin Dashboards

## CERTIFICATIONS & AWARDS

- **2025:** Gauntlet AI Engineering Fellowship (G3)
- **2024:** NASA Space Apps Hackathon Winner
- **2023:** GenAI with Large Language Models
- **2022:** Ethereum Blockchain Developer
- **2021:** Mosh React Native Academy
- **2020:** Machine Learning Pipelines (DataRobot)
- **2020:** TensorFlow Computer Vision Developer
- **2020:** Google Cloud Platform Developer
- **2019:** AWS Microservices Practitioner
- **2019:** Y Combinator Startup School

## EDUCATION

### Data Science / Machine Learning

2020 – 2021

Vanderbilt University • 100% Remote • Nashville, TN

- As a helpful Teaching Assistant, I gained exposure to hundreds of diverse machine learning applications
- Taught 900+ college students machine learning, Python, API's, TypeScript, HTML, dashboards, & databases
- Managed busy schedule of remotely teaching 30+ university students per week in 1:1 setting (one hour per person)

### Data Science / Machine Learning

2019 – 2020

Lambda School / BloomTech (Funded by Y Combinator) • 100% Remote • San Francisco, CA

- Deploying Supervised/Unsupervised Machine Learning Models, Recommendation Engines
- Computer Vision (CV) Models, Time-Series Forecasting, Natural-Language Processing (NLP) Pipelines
- Python, SciKit-Learn, PySpark, Data Engineering, PostgreSQL Databases, Back-End APIs (Flask / FastAPI)

### Computer Science / Mathematics

2011 – 2012

Georgia Southern University • Statesboro, GA

- Visual Basic, C, C++, Calculus, Statistics, R, Data Structures, Programming Principles, Linear Regression

## EXPERIENCE

### AI Engineer / Mobile Engineer • CellarTracker • Remote, Seattle

2023 - 2025

- Wrote TypeScript front-end & Python back-end of CellarChat™ LLM chatbot for 1M+ active members
- Architected OpenAPI pipeline, fine-tuning pipeline, LLM evaluations, and admin observability systems
- Integrated intelligent ML-powered recommendations for world's largest online database of wine reviews
- Helped to boost app store ratings to 4.9★ average with 10,000+ verified 5-star ratings on iOS and Android
- Embedded Apple Pay subscriptions in the React Native app to generate additional 25%+ recurring revenue
- Implemented animations, barcode scanning, activity feed posts, recommendations, and OCR image search
- Streamlined the Redux store for fast, efficient, and persistent global state management between app sessions
- Rebuilt the React Native app's analytics implementations for tracking critical user interactions and app behavior

### Mobile Engineer • Demosphere • Remote, Washington D.C.

2022 - 2023

- Transitioned entire codebase from Javascript to Typescript for increased long-term maintainability
- Improved computational and network efficiencies by reducing load times and runs to the database
- Evaluated Google Crashlytics to reduce edge case crashes and improve p95 stability and performance
- Iterated on group chat features, push notifications, and native calendar sync to improve user satisfaction

### React Native Developer • FinEquities • Remote, Miami

2021 - 2022

- Built fintech app to compete with Robinhood by exchanging stocks/crypto & connecting bank accounts
- Wrote the data-visualization logic for viewing and comparing the performance of different stocks/crypto
- Built social network features, such as direct chat, user profiles, posts, likes, emojis, & threaded comments
- Constructed core mobile app functionality, including: copy portfolio, trending investors, & suggested stocks
- Custom-built a companion admin web dashboard to monitor mobile app performance & infrastructure health

### React Native Developer • instaSod.com, CustomizedChristmasLights.com • Atlanta

2015 - 2019

- Built mobile app & four websites, and marketed online to generate \$500k+ of gross sales in 3 years
- Managed two local small businesses: landscape design/contracting and professional christmas lighting
- Engineered user experience of uploading videos to website, survey questions, & receiving PDF pricing proposal

## PERSONAL PROJECTS



### Founding Full-Stack Engineer • Archlife Industries • Remote, Miami

- Solved personal problems by creating my own mobile apps & new users sign up everyday
- Automated LLMs to advertise on Reddit by reading threads & commenting on the best posts
- Deployed agentic endpoints for facilitating merchant onboarding and inventory management
- Built end-to-end MLOps pipelines to enable low-latency inference and continuous model updates
- Productionized chatbots using agentic RAG, tool-calling, voice-powered commands, & interactive maps
- Engineered observability admin dashboards for marketing insights, analytics, API logs, & database management