



# RYAN ZERNACH

## MOBILE APP DEVELOPER & DATA SCIENCE SOFTWARE ENGINEER

Remote, Miami Beach, Florida, United States

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[LinkedIn Profile](#) • [Github Account](#)

### TECH STACK — Quickly Learns New Tools & Technique

- AWS Elastic Beanstalk / Heroku / GCloud
- Natural Language Processing / Spacy
- SQL / PostgreSQL / NoSQL / MySQL
- React Native / Mobile Apps / Expo
- iOS & Android App Development
- Visualizations / Plotly / Matplotlib
- AWS Certified Cloud Practitioner
- Python Programming Language
- Scikit-Learn / Machine Learning
- Pipenv / Virtual Environments
- Tensorflow Developer / Keras
- Command Line Terminal
- Docker Containerization
- DataRobot AutoML
- Github Workflow
- Flask / FastAPI
- Pandas & Numpy
- Spark / Big Data
- Tableau / Power BI
- TypeScript JS / NodeJS
- React / JS / HTML / CSS
- Advanced Microsoft365
- Dash Core Components
- Django Web Development
- Wordpress Web Development
- Extract Transform Load (ETL)
- Webscraping / BeautifulSoup
- Data Lakes / Data Warehouses
- Figma Designing & Prototyping
- Software Development Life Cycle (SDLC)

### PORTFOLIO PROJECTS — Links to Additional Details in Project Titles

**ADP Gym Mobile iOS/Android App** — *Used for Gym Trainers to to Track their Member's Sessions/Payments*

- Listened to client, and then designed and developed the cloud infrastructure for this project
- Designed and developed this Typescript React Native Expo mobile app in nine weeks (part-time)
- Custom-built a companion Python Flask web app for gym members to securely pay their trainers

**Better Reads iOS App w/ Machine Learning** — *A Platform for Readers to Track, Share, and Discover New Books*

- Used Agile & Scrum methodologies to iteratively deploy Natural Language Processing (NLP) models
- Practiced CI/CD via blue/green RESTful Flask microservices on AWS EB to facilitate JSON post requests
- Launched and managed a PostgreSQL instance on AWS RDS to store millions of GoogleBooks data

**Flight Prices** — *Airline Pricing Analysis and Interactive Pricing User-Interface*

- Built front-end user interface with Flask for user to interact w/ a predictive machine learning model
- Tediously gathered 27M rows of data, wrangled/cleaned to 9M, uploaded data to Kaggle
- As a data analyst, I generated statistical analyses, distribution charts, and business intelligence insights

**Brain Power** — *Using Machine Learning and an EEG Device to Control Technology*

- Built an application for the user to control light switches & thermostats with their brain
- Collected data from an EEG device and used Scikit-Learn to train a predictive model
- Deployed back-end Python get request API w/ Flask: communicate w/ EEG device, detect brain patterns

**Spotify Music Recommendation Engine** — *Recommends New Music Based on Your Favorite Songs*

- Connected with Spotify's API to harvest data (and metadata) about the songs in their database
- Built back-end Python API's (get and post requests) to return predicted songs data to front-end

## EDUCATION

### **Data Science Software Engineering**, August 2019 – August 2020

Lambda School, Remote, San Francisco, CA

- Data Engineering — Completed a deep dive into Data Engineering, working with databases, back-end API's, big data, productization, and continuous integration & deployment.
- Software Engineering — Served as a data scientist on remote development teams via Slack, Zoom, Notion, & Trello alongside UX designers, web-devs, and iOS developers to bring projects to fruition.
- Machine Learning — Gained hands-on experience by engaging with machine learning and being able to understand unsupervised learning, natural language processing, & neural networks.
- Statistical Analysis — Developed a solid foundation of analytical and predictive statistics, including linear algebra, linear regression, hypothesis testing, and storytelling with data.
- Computer Science — Learned first-hand about how various data structures (hash tables, graphs, BST's, etc.) can optimize runtime complexity, classic algorithmic paradigms, and computer architecture.

### **Computer Science & Mathematics**, August 2011 – December 2012

Georgia Southern University, Statesboro, GA

- Calculus I, Calculus II, Calculus III, Statistics, Data Structures, Programming Principles I, Programming Principles II, Discrete Mathematics, Ethics of Computers in Society

## CERTIFICATIONS

- **DataRobot 10x Data Science AutoML**, September 2020
- **TensorFlow Developer**, July 2020
- **AWS Cloud Practitioner**, June 2020
- **Y Combinator Startup School**, March 2020

## EXPERIENCE

### **Trilogy Education**, *Senior Data Science / Data Analytics Tutor*

Full-Time, Remote, August 2020 – Present

- I guide dozens of programming students through different tech problems each week.
- All of my students are part-time: which means that many are full-time working professionals.
- My students come from 50+ universities — they are all enrolled in the same curriculum/program.

### **Vanderbilt University**, *Teaching Assistant: Data Visualizations*

Part-Time, Remote, September 2020 – March 2021

### **instaSod.com, CustomizedChristmasLights.com**, *Small Business Owner (Self Employed)*

Full-Time, October 2015 – January 2019, 3 yrs 4 mos

- Data Management — automation, invoicing, client management, Google Analytics
- Professional Sales — Generated \$450k+ gross sales over the course of three years
- Designer — websites, systems, processes, graphics, digital landscapes, sales proposals
- Lessons Learned — the experience of managing my own businesses has shaped my mindset:
  - Customer/User/Client Centered Min
  - Ability to Ask the Right Questions
  - Desire to Never Stop Learning
  - Intuition to Set Goals/Plans
  - Clarity of Communication
  - Team-Building Aptitude
  - Humility to Ask for Help
  - Results-Driven Attitude
  - Disciplined & Focused
  - Critical Thinking Skills

- Capacity to Research
- Task Management