



RYAN ZERNACH

FULL-STACK SOFTWARE ENGINEER

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

MOST VALUABLE TECH STACK — Quickly Learns New Tools & Technique

- Fluent in Python / Flask Web Development
- iOS / Android Mobile Apps (React Native)
- Websites in HTML / CSS / JavaScript
- Managing SQL & NoSQL Databases
- Typescript JS & Node.js
- Machine Learning Pro
- Creating & Managing Back-End API's
- Dashboards & Data Visualizations
- Google Cloud & AWS
- Webscraping Wizard
- Cloud-Computing
- and more...

PORTFOLIO PROJECTS — Links to Additional Details in Project Titles

Landscape Supply App — *iOS/Android App & Online Web Dashboard to Buy/Sell Landscape Supplies*

- For 3-months part-time, I wrote the iOS/Android app in React Native & built the web dashboard
- Used Python/Flask & HTML/JS/CSS to build the web dashboard and back-end api's
- Hosted the cloud infrastructure & authentication for this project on the Google Cloud Platform

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

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

- **Google Cloud Developer**, March 2021
- **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 & Web Development Tutor*

Full-Time, Remote, August 2020 – Present

- I guide hundreds 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.

Archlife Industries, Inc., *Full-Stack Software Engineer*

Self-Employed Part-Time, Remote, August 2020 – Present

- My most impressive project —> <https://LandscapeSupply.app/>
- A portfolio of my other freelance mobile app, web development, and data science software development projects can be found on [my website](#)
- I train people how to build their own websites, at a fraction of the cost if they were to hire me to do it

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