

Zach Smith

zach_asmith@yahoo.com

Education

University of Texas | Austin, TX

Aug. 2019 – May. 2020

Undergrad mathematics and graduate computer science courses

Highlights: Abstract Algebra, Agda (type systems), Haskell, Real Analysis

Michigan State University | East Lansing, MI

Aug. 2012 - June 2017

Experience

Full Stack Developer - Contractor

March 2021 - July 2021

CustomDFS | Remote

- Built an MVP for a sports fantasy simulator. 10 - 50 monthly users
- Functionality overview: user sign up and authentication, user portal, editable table fed into Monte Carlo simulation hosted on AWS

Software Engineer and Product Lead

July 2020 - August 2021

Twisted Fields | San Gregorio, CA

Tech

- Designed and implemented software and hardware of a smart irrigation system ran on Raspberry Pis and microcontrollers. 1 - 4 daily users
- Developed third party data collection and visualization tools on top of Ubiquity's Unifi Network software to help debug networking issues
- Modified Li-Ion Ranger (4x4 golf cart) to passively charge from solar power. Active and passive circuit design, testing, debugging, and documentation

Management

- Managed daily work and goals of non-tech staff to a 20x increase in egg production and sales over one year (~50 hens grown to ~1000, \$20 daily to \$350+). This led to a new self-sustaining business sector of the farm

Computer Science Intern

Jan 2019 - May 2019

NASA | Hampton, VA

- Test engineer on a team of 10 students challenged to design an autonomous rover for a Mars retrieval simulation competition
- Identify non-compliant public-facing Langley websites, and facilitate their migration to log server traffic on Splunk
- Improved Splunk public-facing web server compliance by 12%

Database Manager and Web Designer

April 2018 - July 2019

Blockmaster Electronics | Elk Grove, IL

- Built and maintained a product database of over 20,000 unique part numbers, each with 30+ specs
- Created a consumer-focused company website and integrate a filter-able database optimized for search

Leadership / Extracurricular Activities

Unmanned Aerial Vehicle Team (Computer Vision)

Aug 2019 - May 2020

UT Austin | Austin, TX

- Led the data pipeline and generation group of three students on the computer vision team. Our goal was to locate and identify rotated alphanumeric symbols and their degree of rotation
- Trained a machine-learning model (YOLO v3) to correctly inference 50% of data where there exists one symbol (18x better than random chance)

Musician

Aug 2019 - May 2020

Wiccit (band) | Austin, TX

- Perform original music in the band Wiccit in venues around Austin

Programming Skills

Languages: Python, Haskell, Javascript

Technologies: Linux, React, Firebase, Git, Redis, Flask