Zach Smith

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 ($\sim$50 hens grown to $\sim$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