Zach Smith

zach_asmith@yahoo.com

Education

University of Texas | Austin, TX — Aug. 2019 – March. 2020

Audited undergrad mathematics and graduate computer science courses

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

Experience

Lead Software Engineer — October 2021 - Present

iMetalx | Sausalito, CA

- Led software development of a novel communications technology to a successful technology demonstration for the US Air Force
- Currently building a proof-of-concept simulated system to mitigate space debris for the US Space Force on a 6-month contract
- Space-domain research and author of grant proposals

Contract SWE — August 2022 - November 2022

T-Do, Inc. | Remote

- Wrote and open-sourced the virtual DOM library, Snabbare, for the Purescript language for a startups MVP
- Currently used in a live private beta as part of the project at T-Do.com

Junior Roboticist — May 2020 - August 2021

Twisted Fields | San Gregorio, CA

- Developed software and hardware of a smart irrigation system
- Designed and implemented circuit to passively charge Li-Ion vehicle from solar power
- Managed daily work and goals of farm staff

Computer Science Intern — Jan - May 2019

NASA | Hampton, VA

- Robotics test engineer on a team of 10 students challenged to design an autonomous rover for a Mars retrieval simulation competition
- Security-focused analysis of 500+ internal and external NASA websites, and bringing up to meet security compliance

Projects

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
- Trained an ML model 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

Tools

Languages: Python, Haskell, Purescript, Javascript

Other: Linux, Docker, Git, Ansible, Azure, circuit design