

# Zach Smith

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## Education

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### 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

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### 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

### Contract SWE

August 2022 - Present

T-Do, Inc. | Remote

- Wrote and in-process of open-sourcing a virtual DOM library for the Purescript language for a startups MVP
- Currently used in a live private beta as part of the project at [T-Do.com](https://t-do.com)

### Junior Robotcist

May 2020 - August 2021

Twisted Fields | San Gregorio, CA

#### Tech

- Developed software and hardware of a smart irrigation system ran on Raspberry Pis and microcontrollers. 1 - 4 daily users
- Designed and implemented circuit to passively charge Li-Ion vehicle from solar power

#### Management

- Managed daily work and goals of farm staff to a 20x increase in egg production and sales (~\$20 daily to \$350+ daily sales). This led to a new self-sustaining business sector of the farm

### 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

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### 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

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**Languages:** Python, Haskell, Purescript, Javascript

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