

# P. Brayden Smith

Software Engineer and Rocketry Enthusiast

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## Education

**B.S. COMPUTER SCIENCE AND B.S. MATHEMATICS**

Graduation: April 2022

Brigham Young University: GPA 3.81

## Completed Projects with:

[See Projects on GitHub](#)

C and C++

Applied Machine Learning

Python

Bash / Shell

CAD

MySQL and NoSQL

JavaScript

MATLAB

Microcontrollers

Embedded Systems

Optimization Algorithms

Quality Testing

## Professional Goal

- Looking to further develop professional level software engineering skills through an internship during Summer 2022.

## EXPERIENCE

### BYU High Power Rocketry Payload Team Lead

BYU / Provo, UT / August 2021- Present / Member of club since January 2019

- Competing in Spaceport America Cup 2022 and IREC as team lead of the rocket's main payload design and implementation
- Designing Reinforcement Learning Models to handle anti-sloshing systems for liquid propellant
- Already built multiple multi-staged rockets with projects in telemetry, guidance, navigation, and control

### Mentored Research

BYU / Provo, UT / May 2020 - Present

- Mentored Research with [Dr. Dennis Ng](#) and [Dr. Darin Ragozzine](#)
- Evaluated Web Search Query Algorithms with natural language data sets greater than 2 TB in Python and C++
- Managing multiple servers to maintain other Research student's projects and work

### Teaching Assistant

BYU / Provo, UT / September 2019 - Present

- Teaching and assisting students in the following classes: BYU's CS 252 Computational Theory, CS 312 Algorithms, and currently CS 472 Machine Learning

### Website Designer

[E-Trafficers](#) / Orem, UT / March 2019 - August 2020

- Worked on a team of designers building websites for Mortgage Loan Providers
- Upgraded the back and front-end of a Fannie Mae 1003 Application System in Laravel