

John Bensen

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EDUCATION

Purdue University - West Lafayette, IN

May 2023

Bachelor of Science in Computer Engineering

GPA: 3.62/4.00

Relevant Coursework:

- Completed: Python for Data Science, Advanced C, C Programming, Elementary Linear Algebra, Data Structures, Introduction to Digital System Design

PROJECTS AND RELEVANT EXPERIENCE

Entropy - *Lead Developer*

August 2020 - Present

- Sole developer for a new social media app, Entropy, that is currently on the app store
- Using Python and Django, developed a web server running on Google Cloud Platform that is responsible for updating, querying, and managing all relevant data
- Designed a REST API, based on CRUD operations, that allows the app to interact with the server
- Building the app with Flutter and Dart, using the Provider package for state management
- Constantly talking to users about their experience using the app in order to prioritize what to work on

Reusable Rocketry - *Software Lead*

Feb 2021 - Present

- Lead software developer for a team that is building a model rocket capable of landing itself
- Developed a complementary filter that combines data from a magnetometer and gyroscope to estimate the rocket's current state
- Developed a PID controller that determines what direction to point the rocket based on the difference between the current state and desired state
- Currently working with other subteams to determine how to control the gimbal based on the output from the PID controller

Spacecraft GN&C Project- *Software Lead*

March 2020 - August 2020

- Worked on a team to develop a closed-loop rocket guidance software that consistently landed a reusable rocket in a rocket simulation
- Formulated a computer-solvable convex optimization problem from the physical constraints, equations of motion, and desired outcomes that are involved with rocket landing guidance

SKILLS

- Languages: Proficient in Python, C, SQL, Dart, and Flutter - Comfortable with Java, C++, Matlab, HTML, CSS, Javascript, Go, Bash
- Software Technologies: Linux, Django, Google Cloud Platform, Firebase, Tensorflow, Numpy, git, CVXPY, Firestore, ecos

WORK EXPERIENCE

Leo's Restaurant - *Busboy*

2016 - 2021

- Focused on turning over tables while also assisting the rest of the staff with a variety of task
- Effectively communicated with co-workers in high stress situations