

EDUCATION

Georgia Institute of Technology
Atlanta, GA | May 2022

B.S. Computer Science

Concentration:
Devices & Systems Architecture

Honors Program

GPA: 3.35

SKILLS

Languages:

C++
C
Java
Python
HTML
CSS
Javascript
Qt

Software:

KiCad
Microsoft Visual Studio
Microsoft Visual Studio Code
IntelliJ
Pycharm

Relevant Coursework:

Digital Design Lab
Computer Organization and Programming
Data Structures and Algorithms
Object Oriented Programming
Linear Algebra

Campus Organizations:

Yellow Jacket Space Program
Journey Church of Atlanta
Students for the Exploration and Development of Space

Interests:

Guitar
People (I really enjoy talking to people)
Space!

EXPERIENCE

Yellow Jacket Space Program

Avionics Team – Propulsion Electronics

April 2019 – Present

- Create and design circuit schematics and developing printed circuit boards using KiCad for propulsion electronics and avionic sensors for Subscale – a liquid engine rocket to go above 40 km with a vision to send a rocket past the Kármán line; solder and place components onto boards for testing purposes
- Currently developing a light, encompassing schematic for the engine controller to turn engine valves on or off for testing purposes, interfacing with a control room and teensy
- Developed and tested software for an accelerometer using SPI communication protocol in C

Systems Team

January 2019 – August 2019

- Developed YJSP engineering specifications; integrating and testing different projects by each team using models and simulations; returning necessary feedback
- Interpreted the software for the 6DOF simulation developed by a past engineer, documenting the code and developing a LaTeX file to document necessary information for future understanding

The Aerospace Corporation

May 2019 – August 2019

Visualization Technical Intern

- Contributed to the user-interface of a cutting-edge proprietary satellite visualization engine using C++, OpenGL, and the Qt-based framework by adding features to make development and customer usage effortless
- Optimized efficiency of usage for the web interface of a satellite intercept and rendezvous visualization tool by developing the web interface using Javascript, HTML, and CSS creating a smoother user experience
- Developed skills to work with others on a large-scale project, excelling in communication with the team when problems arose

Space Systems Design Lab – Glenn Lightsey Research Group at Georgia Tech

Undergraduate Researcher

Mission Operations

August 2019 – Present

- Designing and creating Georgia Tech's first Mission Control Center with the ability to control all GT satellites and visually display various data from said satellites
- Developing an application to receive and display current satellite data using HTML, CSS, Javascript, and MongoDB

Sensor Testing Rig and Operation Systems Project

January 2019 – May 2019

Command and Data Handling Team, Attitude, Determination, and Controls Team

- Used Python to develop software for STRATOS, a high-altitude balloon project; worked with electronics such as the GPS, magnetometer, and IMU to find flight position; created sensor wires and cables for testing and flight
- Prepared circuit boards for flight through soldering and placement of components

AeroHacks (Aerospace-themed hackathon)

AeroYackets Team

March 2019

- Developed a team website using HTML, CSS, and Javascript into frontend and backend frameworks
- Created a prototype named QuadDropper – used CAD to create design for a payload bay mount that houses a small, foldable drone for deployment at peak apogee. The bay opens with assistance of a motorized pin system and allows the drone to expand to full dimensions