Jason Math

(512) 217-7384 | jasonmath@utexas.edu
github.com/jason-math | linkedin.com/in/jason-math

EDUCATION

Bachelor of Science, Electrical and Computer Engineering May 2023
The University of Texas at Austin, GPA: 3.91 / 4.00

Relevant Coursework:
In Progress: Computer Architecture, Digital Logic Design, Algorithms, Linear Systems and Signals, Probability
Completed: Intro to Embedded Systems, Circuit Theory, Software Design and Implementation, Matrices

EXPERIENCE

Avionics Hardware General Engineer, Texas Rocket Engineering Lab June 2020 – Present
- Developing power system for Halcyon, the first undergraduate liquid-propellant rocket planned to reach space
- Designed and tested Flight Computer System Architecture for the Halcyon rocket
- Established specifications and sourced space-grade hardware sensors and components from multiple vendors
- Prepared and delivered multiple presentations to various directors and team leads

Technical Team Software Engineer, Freetail Hackers January 2020 – Present
- Developing mobile and web applications for hackathon attendees and corporate sponsors
- Leading project to create a Discord bot in Python to aid in facilitating virtual hackathons
- Hosted SummerHacks hackathon in collaboration with multiple organizations and companies
- Organized various workshops and talks for the 500+ attendees who participated in SummerHacks

Battery Protection Systems Engineer, Longhorn Racing Solar Vehicles January 2020 – July 2020
- Wrote battery firmware for balancing battery voltages within a lithium battery array
- Tested and verified code for a Command Line Interface (CLI) that retrieves data from a telemetry system

PROJECTS

Super Smash Bros. – Game for TM4C MCU Embedded Systems Project May 2020
- Created a 2-player Super Smash Bros. game clone from scratch that runs on two Tiva Launchpads mounted on custom PCBs designed in AutoDesk Eagle and modeled in Fusion 360
- Wrote custom firmware to implement UART communication, LCD, Flash Memory, SD card, a DAC, and joysticks
- Implemented high-level software algorithms such as image compression, frame skipping, SD card audio streaming, background clipping, controller-GPU synchronization, and hardware computer simulation
- Collaborated with a partner and demonstrated standard version control and peer-programming conventions
- Won “Best Game” out of 300+ students in the course and 3rd place in IEEE’s Summer Showcase event

Interpreter – Self-made programming language based in Python January 2020
- Created a functioning Interpreter that executes code written in a custom programming language
- Researched and implemented comprehensive high-level elements including lexical analysis, symbol tables, abstract syntax trees, user functions, and error handling
- Practiced strong Object-Oriented programming and file organization conventions
- Tested and verified functionality and added documentation for syntax and methods

Snap Pack – Full-stack computer-vision Android application Hackathon Project November 2019
- Wrote Python backend that implements Google Cloud Vision API into a mobile-app based in React-Native
- Collaborated with team to integrate multiple programming languages to produce a full-stack application
- Won “Best use of Google Cloud API” out of over 700 competitors who attended HackTX

SKILLS

Languages: Python, C/C++, Verilog, ARM Assembly, Java, JavaScript, React-Native, SQL, and HTML/CSS
Tools: Keil, Git, Linux, LaTeX, Arduino, Eagle, Fusion 360, MongoDB, and Google Cloud Platform
Certifications: Google Cloud Platform Fundamentals and Advanced Algorithms and Complexity