Angela **Hudak**

Computer Engineer

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EDUCATION

Rochester Institute of Technology | B.S. in Computer Engineering August 2018 - May 2023

EXPERIENCE

Amazon Web Services (AWS) | Technical Writer Intern May 2022 - August 2022

- Converted the FreeRTOS.org Wordpress site to GitHub Flavored Markdown to be hosted on GitHub Pages.
- Created a Python script utilizing the Pypandoc API to convert between file types.
- Wrote extensive documentation in HTML so the conversion process can be repeated with an easy user experience.

Bryx Inc. | Full-Stack Embedded Systems Engineer Intern September 2021 - May 2022

- Designed in KiCAD, developed, and tested prototype Printed Circuit Boards.
- Validated circuit design and component compatibility using LTSPICE.
- Completed through hole (THT) soldering for board building and re-work.
- Utilized breadboards for prototypes, concept validation, and electrical debugging.
- Various projects using mechanical CAD and using / maintaining 3D printers.
- Wrote Arduino and Python code to interface and test hardware.
- Communicated with third party companies for hardware product development.

Abbott | Project Support Engineer Intern July 2020 - December 2020

- Designed and developed the backend for a site that would allow the user to store and analyze data using Python and the Pandas library.
- The application was able to receive and organize data from a csv file so it could be easily viewed by the user.
- Learned C++ to develop smaller applications which could potentially be used in upcoming projects.

PROJECT

MIPS Processor | VHDL January 2021 - May 2021

- This project was completed over the course of my Digital System Design 2 class.
- Used Xilinx Vivado to create the functional parts of a MIPS Processor.
- Constructed with the parts: ALU, Register File, Instruction Fetch, Decode, Execute, Memory, and Writeback Stages.
- The processor was able to receive different MIPS assembly instructions and execute those commands.

SKILLS

- **Languages:** Python, C, VHDL, Arduino C/C++, C++, ARM / MIPS Assembly, MATLAB, LaTeX
- **Software:** KiCAD, Keil μVision, PSPICE / LTSPICE, Xilinx Vivado, Pycharm, Raspbian, Vim, RedHat, Ubuntu
- **Hardware:** Arduino, Raspberry pi, MSP432p401r, Basys3, FRDM-KL46Z Board, Oscilloscopes, Breadboard / Circuitry, Digital Multi-meter, Waveform Generator

EXTRACURRICULARS

Computer Science House | House Improvements Director, 3D Admin August 2018 – January 2022
csh.rit.edu

- Computer Science House is a living and learning community with a helpful environment that emphasizes hands-on learning and projects outside of the classroom.
- The House Improvements director delegates projects that improve the physical aspects of floor, such as painting, cleaning, building, and organizing House's resources.
- A 3D Print Administrator assists and educates other members on how to print 3D files effectively and taking care of 3D printers.

RIT Space Exploration Club (SPEX) | Member January 2019 - December 2019
spex.rit.edu

- Worked with other members on the rover electronics team by building a working prototype rover in preparation for the University Rover Challenge.