https://cfh.sh

OBJECTIVE: Dedicated Computer Engineering graduate looking to start a career in low-level software or high-level

hardware (FPGA), where I can apply topics learned in class and experience from co-ops.

EDUCATION: Rochester Institute of Technology Rochester, NY

Master of Science in Computer Engineering

Expected May 2021

Compiler Construction Real-time & Embedded Systems Hardware/Software Design for Crypto. Apps. Reconfigurable Computing Thesis Title: Hybrid Scheduler for Performant High-Level Synthesis (in-progress)

Thesis Advisor: Dr. Sonia López Alarcón

Bachelor of Science in Computer Engineering Expected May 2021

Minor in Computer Science, Immersion in ASL and Deaf Cultural Studies GPA: 3.70

Computer Organization & Architecture Interface & Digital Electronics

Digital Systems Design I & II Operating Systems

SKILLS: Software: FreeRTOS, git, Keil µVision, Linux, STM32CubeIDE, Xilinx SDK & Vivado

Programming Languages: ARM Assembly, C, C++, C#, Java, LATEX, Matlab, Python 3, VHDL

Hardware: 3D Printer, Multimeter, Oscilloscope, Power Supply, Signal Generator, Soldering

PROJECTS AND LABS: NXP Cup Car for Interface & Digital Electronics

• Wrote software to autonomously drive a model car around a track as fast as possible

• Interfaced with various sensors and used different control theory methodologies

Power Wheels Universal Control Interface

• Worked in multidisciplinary team of students to build modified Power Wheels vehicle, used to help children with limited mobility learn how to drive wheelchairs

• Developed code-base that processed analog joystick input and generated analog output

RIT FIRST ImagineBots

• Led a project to redesign our table-top robots, which are driven by attendees of ImagineRIT

• Collaborated with other students to design the architecture, write firmware and application software, as well as design some of the circuitry used in the control system

EXPERIENCE:

Senior Project Computer Engineer Lutron Electronics, Boston MA

2021 - Present (Incoming)

Computer Engineering Firmware Co-op

Diebold Nixdorf, North Canton OH

Aug 2018 - Dec 2018, May 2019 - Aug 2019

• Maintained and improved a firmware debugging tool which was used by team members daily

• Wrote automated firmware tests in C# and participated in Agile software development

Teaching Assistant and Grader

Rochester Institute of Technology, Rochester NY

• Graded C programs of students in a Linux environment Aug 2017 - May 2018 • Graded Java projects using IntelliJ and Java 12 Sept 2019 - Dec 2019

• Graded and helped student write and debug VHDL using Vivado Aug 2020 - Dec 2020

AWARDS: A+ and Network Pro Certified

Chairmans's Award and Dean's List Nominee from FRC Team 1699

Dean's List from Kate Gleason College of Engineering, Spring 2017 through Fall 2020

ACTIVITIES AND HOBBIES:

Oct 2009 - Present Jun 2018 - Present

• Assisted teams with their robot as a Control System Advisor

Apr 2014 - Present

• Volunteered at FIRST events to keep the event running smoothly

Oct 2009 - May 2016

• Participated on local FIRST teams, including leadership roles

RIT FIRST Alumni Association

Sept 2016 - Present

• Mentored various local FIRST robotics teams (FRC Team 3838 and local FLL teams), assisting with programming, electronics, team building, and game analysis

• Led the club as the President, ensuring club projects were successful May 2019 - Present

3D Printing Enthusiast, Amateur Radio Technician