github.com/AtticusRussell

Experienced computer engineer highly motivated to contribute in a team development environment. Strong interest and ability in software and firmware development for robotic systems.

#### Education

## **Rochester Institute of Technology**

Rochester, NY

Bachelor of Science: Computer Engineering GPA: 3.28 Dean's List: Spring '22, Spring '20

Expected Aug. '23

Relevant Coursework:

- Applied Programming in C (CMPE-380): Became proficient in C programming in the Linux environment
- Intro to Software Engineering (SWEN-261): Became proficient developing Java code in an Agile team environment

## **Skills**

- Languages: C, C++, Python, VHDL, Matlab, Arm Assembly, Languages: C, C++, Python, Assembly, Languages: C, C++
- Tools: GNU/Linux environment, ROS2, Git, ModelSim, Xilinx Vivado, Altium, CAD
- Technical: Debugging, troubleshooting, soldering, robotics, embedded software
- Professional Skills: Presentations, Scrum framework, Agile methodology
- Extremely proficient in identifying existing open-source code to reduce development time

#### **Work Experience**

### Vanteon Corporation: Electrical Engineering Co-op

Pittsford, NY Aug.—Dec. '21

- Improved RF loopback testing for Vanteon's SDR platform through automation
  - Overhauled Matlab script for test data characterization
  - Wrote C code controlling SDR test menu system, integrated with Matlab script for automatic data collection
  - Designed PCB in Altium to expedite switching RF filters during testing
- Fabricated and assembled display system for customer demonstration

# FloDesign Sonics: Electronics Team Intern

Wilbraham, MA

- Integrated external API into prototype electronic component inventory system

Jun.-Aug. '21

#### Research and Development Intern

 Developed system to image ultrasonic standing waves using Schlieren imaging with pulsed laser illumination Jun.-Aug. '20

May-Aug. '19

#### **Product Development Intern**

- Used CAD to create parts, assemblies, and drawings for acoustic filtration system
- Created formal work instructions for manufacturing transducers

## **Research and Development Intern**

Jun.-Aug. '18 Jun.-Nov. '17

- Conducted tests of acoustic filtration technology and collected performance data
- Prototyped improvements using CAD and 3D printing
- Regularly presented progress towards project milestones to management and staff

## **Projects**

### Autonomous Boat to Seek Radio Beacon

ROS2, C++, Python

- Designed autonomous boat to seek radio beacon for NASA SAVER competition
- Worked with multidisciplinary team of engineers in Scrum collaboration environment

#### Small Scale Autonomous Racecar

Aug. '22-Apr. '23

- Created firmware for autonomous racing vehicle using ARM-based microcontroller
- Wrote state-based control system to navigate an unknown track in a timed race

Aug.-Dec. '22

Embedded C

### **Pipelined MIPS Processor**

Created and tested each stage of a pipelined MIPS processor with VHDL

Jan.-May '22

VHDL

- Tested overall functionality by calculating a portion of the Fibonacci sequence
- Experimentally found the fastest clock frequency at which the processor could operate

### **Extracurricular and Personal**

Phi Delta Theta New York Eta Chapter

Interests: Cars, audio, rugby, wrestling

U.S. Citizen

Oct. '21-present