# Alden Davidson

adavidson@pm.me https://github.com/ananaso

#### **EDUCATION**

# ROCHESTER INSTITUTE OF TECHNOLOGY, Rochester, NY

Bachelor of Science in Computer Engineering, May 2019 Minor in Military Studies and Leadership, May 2019

GPA 3.55

#### **SKILLS**

Languages: LATEX, Python, Qt, VHDL, ARM Assembly, C/C++, Java

Hardware: FANUC & Kuka robots, Digital Multimeter, Oscilloscope, Function Generator

**Software**: GNU/Linux operating systems, command-line interfaces

Foreign Languages: German – Intermediate

#### **EXPERIENCE**

#### United States Air Force

May 2019 - Present

Commissioned as a 2nd Lieutenant with an initial assignment as a Developmental Engineer.

# RT Leaders | Munich, Bavaria, Germany

Jun 2017 – Dec 2017

Programmed FANUC and Kuka models in both factory and laboratory locations. Implemented email-based support and ticketing system using MantisBT and integrated CppCheck into Jenkins.

# RIT Computer Engineering Department

Dec 2016 - May 2017

Researched and implemented networking protocols within a virtual domain for realization of real-world radio use cases, using a synthesis of C++ and Python.

#### Sol's Underground | Rochester, NY

Sep 2014 – May 2018

Student Manager

Aug 2016 - May 2018

Supervise 4+ student employees per shift, ensure proper temperatures of food products, authorize returns and student meal slips, and work directly with customers to solve problems or complaints.

### **PROJECTS**

#### Low Cost Fundus Camera – Senior Design

Created low-cost design for a functional modern fundus camera capable of capturing screening quality images of the retina. Interfaced Raspberry Pi with linear actuators, motor HAT, and controllable LEDs. Designed user interface in PyQt.

#### Semi-autonomous Cell Battery Constructor

Designed and implemented operations for FANUC R-30iB to construct experimental cell batteries based on design parameters input by the user, as well as carrying pallets of materials into and out of airlocks.

#### USAF Ribbon Rack Visualizer – Personal Project

Developed PyQt application for visualizing ribbon racks with proper order of precedence. Designed with option to further extend support to other branches of the military.

#### Genesee River Raft – Personal Project

Constructed raft by hand from fallen timber and successfully floated it from RIT to the University of Rochester boathouse.

**COMMENDATIONS** Commissioned Eagle Scout, 2014 - Computer Sustainability and Recycling Drive

BSA, Order of the Arrow - Vigil Honor, 2014

National German Honor Society - Chapter President, 2018-2019