MARK GOLDWATER

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EDUCATION

OLIN COLLEGE OF ENGINEERING **MAY 2021**

BACHELOR OF SCIENCE IN ELECTRICAL AND COMPUTER ENGINEERING

Recipient of four year half-tuition merit scholarship valued at $100,800

GPA: 3.96/4.00

Relevant Coursework (through Fall 2018): Data Structures and Algorithms, Modeling and Simulation in Python, Quantitative Engineering Analysis (Multivariable Calculus, Linear Algebra, Signals and Systems, Mechanics), Software Design, Bayesian Statistics.

SKILLS

- Python, Java, C, C++, MATLAB, JavaScript, Ruby on Rails, Git.
- Basic CAD, 3D printer, basic machine shop tools.

EXPERIENCE

TRACK INFORMATION, INC. **SOFTWARE ENGINEER INTERN** **JUN – AUG 2018**

- Designed and prototyped RESTful API for a mobile app to track a user's health statistics using React Native in JavaScript as well as Ruby on Rails.
- Engineered the app's back-end dataflow in order to easily interface with third party APIs.
- App is now used as a display of the product to investors.

ANALOG CIRCUITS **TEACHING ASSISTANT** **AUG – DEC 2018**

- Assisted students with the theory of filter design and circuit analysis.
- Attended a class period twice a week to grade students' lab reports and problem sets as well as provide help with the current lab.
- Served as a resource outside of class for students who needed on-on-one help with the material.

AERIAL ROBOTICS COMPETITION **SOFTWARE DEVELOPER** **SEP 2017 – JAN 2019**

- Designed and developed a simulation of an autonomously controlled quadcopter guiding other autonomous ground robots using Python.
- Creating a system of four drones that interact with each other and a person who is directing their actions.
- Integrated existing systems with ROS to relay data regarding the quadcopter between different scripts

PROJECTS

FACIAL RECOGNITION SOFTWARE MARCH 2017

Implemented the Eigenfaces and Fisherfaces facial recognition algorithms in MATLAB in a computationally efficient manner. Achieved 95% accuracy on a dataset of 50 individuals.

BRAILLE SHEET MUSIC PRINTER OCTOBER - DECEMBER 2018

Designed and built device that can convert digitized music into braille sheet music and print it. Personally focused on the design of the electrical system and the integration of the software, hardware, and electrical subsystems.

ACTIVE NOISE CANCELLATION DECEMBER 2018

Researched and implemented a pseudo real-time noise cancellation system using least mean squares minimization. Canceled white noise in the background of a speech recording.