

# ALAN CHEN

## OBJECTIVE

I am seeking a full-time position that will allow me to learn more about the vast computer engineering field while making a difference in the world.

## CONTACT

PHONE:  
646-894-0553

Portfolio:  
[https:// achen173.github.io/](https://achen173.github.io/)

GitHub:  
<https://github.com/achen173/>

Email:  
alanchen@umass.edu

## HOBBIES

FPV Drone Racing  
Skateboarding  
Fishing  
Tennis

## EDUCATION

### University of Massachusetts Amherst

Bachelor of Science in Computer Engineering  
Expect Graduation Date: May 2021

GPA: 3.5

## SKILLS

**Programming:** Python, Java, JavaScript, React, C, Assembly,  
**Software:** MATLAB, Linux, Atmel Studio, Web/App Development  
**Language:** Chinese (Mandarin)  
**Others:** Arduino, FPGA, Jetson Nano, Quartus, SPI, UART, Circuits

## WORK EXPERIENCE

### ECE 202 Computation Tools Tutor

Sept 2019 – Dec 2019

- Used MATLAB, Excel, and Python to design/visualize systems
- Emphasis on teaching students to design applications efficiently, with well-structured code and checks

### UnitedHealth Group

Software Engineering Internship

June 2019 – August 2019

- Utilized Graph Database, to build a dynamic website which provided unique insights about the huge amounts of data collected to **reduce call volumes and routing/waiting time**

### UnitedHealth Group

Software Engineering Internship

June 2020 – August 2020

- Integrated Airship's push notification features and Apple HealthKit's data into an iOS app to **increase user engagement**

## RESEARCH/PROJECTS

### Election Security

Sept 2018 – May 2019

- Utilize Little-JIL, a software used to build process models, to map out the election procedures in Massachusetts
- Processing the model using Fault Tree Analysis to find possible problems in the election system and looking for ways to improve
- **Presented research to a class of 60 people**

### Cache Optimization in Assembly

Nov 2019

- Wrote machine learning (linear regression) and matrix multiplication in MIPS assembly language
- Optimizing Cache Performance using a Cache Simulator

### Object Detection from a Drone

July 2020

- Retrieved live feed from a drone to perform object detection using pre-trained neural networks
- Check here for pictures: <https://github.com/achen173/DroneRx>