# Alan Hsiao

9549 Atchison Ct. West Chester, OH

ah668@cornell.edu
513-646-3647
linkedin.com/in/hsiaoalan
US Citizen

## EDUCATION

**Cornell University**
Bachelor in Electrical and Computer Engineering
Minor in Computer Science
Expected Grad. May 2021
GPA: 3.65
Dean's List

**Saint Xavier High School**
Grad. May 2017
GPA: 4.00

## COURSEWORK

Computer Architecture
Embedded Systems
Digital Logic
Circuit Analysis
Object Oriented Programming
Data Structures
Signal Processing
Microelectronics
Intelligent Physical Systems
Operating Systems
Discrete Structures

## SKILLS

**Programming:**
MATLAB, Java, C, C++, Assembly
SystemVerilog, Verilog, LINUX

**Circuit Design:**
Altium Designer, EagleCAD, KiCAD

**Fabrication:**
3D Printing, Hand & Reflow Soldering
Circuit Testing, Component Selection
AutoDesk Inventor, Solidworks

**Tools:**
Intel Quartus Prime, GitHub
Simulink, SketchUp, Blender
Adobe Suite, Microsoft Office

**Training:**
Electrostatic Discharge (ESD)
Clean Room Protocol
Ethics & Compliance

## EXPERIENCE

**Collins Aerospace - ISR Space Systems** Jun 2019 – Aug 2019
Systems Engineering Intern Westford, MA

- Created a Rapid Prototyping System [RPS] on a real-time kernel by utilizing Simulink, MATLAB, and xPC Target
- Achieved a 250-300% increase in testing rate by implementing the RPS for a reconnaissance sensor focusing system
- Built an application capable of controlling simulations through Ethernet protocol on a high-performance target computer

**Space Systems Design Studio - CubeSats** Jan 2018 – Present
Avionics and Attitude Control Team Ithaca, NY

- Selected and funded by NASA for the 9th round of Cube Satellite missions scheduled to launch starting in 2019
- Develop three 3U+ CubeSats that aim to be the first CubeSats to autonomously rendezvous and dock in orbit
- Engineer and implement electrical systems for attitude control, power, propulsion, and communications

**CUSail - Autonomous Sailboat** Aug 2019 – Present
Navigation Team Ithaca, NY

- Upgraded the power systems to utilize solar charging for positive power generation
- Host technical workshops focused on equipping underclassmen with tools for success

**Cornell Cup - Robotics** Aug 2017 – Aug 2018
Secretary & Electrical Team Ithaca, NY

- Collaborated with a team of 20 to create a cost effective and intuitive robotics learning platform
- Currently licensing to DaVinci Laboratories, who will use the robot to implement their coding curriculum

**IEEE Mentorship Program - Mentor** Aug 2019 – Present
**Asian American InterVarsity - Coordinator** Aug 2017 – Present
**Microsoft - Cornell Representative** Aug 2017 – Aug 2018

## PROJECTS

**Door Alarm**
Fabricated an embedded system smart alarm that notifies user of unauthorized door access over Facebook Messenger

**Radio Receiver**
Created a receiver capable of listening to local radio stations by tuning a LRC circuit to the resonant frequency