Zijun(Joshua) Ning

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Objective: Looking for summer 2023 Electrical/System Engineering Internship. Available May 1, 2023. US Citizen.

Education

University of Michigan **Ann Arbor, MI**
2nd-year Electrical Engineering Student *2021 - 2025*

- GPA: 3.929/4.0
- Intro to Electronic Circuits, Programming & Intro Data Structures, Intro to Signals and Systems, Elec Eng Sys Des I

Student Team

Autonomous Robotic Vehicle Team **Ann Arbor, MI**
Embedded Systems Team Member *2021 - present*

- Designed electrical system for autonomous vehicle
- Implemented physical/remote emergency stop system
- Controlled light system with Arduino
- Tuned motor controller and PID parameters
- Gained experience with Robot Operating System

Work Experience

Zhao's International Trading Corp **Los Angeles, CA**
Market Research / Tech Assistant *2020, 2021, 2022*

- Provided automation solutions for PPE production line to clients, boosted productivity by 500%
- Communicated with clients and engineers to define the requirements, constraints, and production goals.
- Boosted revenue by 200% every month for 6-month

Awards

Branstrom Freshman Prize **Ann Arbor, MI**

- Top 5% in academic achievement in the college class

Real World Design Challenge **Arcadia, CA**
Math Correspondent *2021*

- Designed long-range package delivery drones with a team
- Calculated power consumption, air drag, and lift of the drone
- Earned 1st place in California in competition

Boy Scouts(Eagle Rank) **Arcadia, CA**
Senior Patrol Leader *2021*

- Organized activities for 30+ scouts
- 221 hours of community service
- Led team to win regional competition

Projects

Terrain Mapping With Autonomous Drone **Software**
School project *2021*

- Developed virtual prototype for an autonomous drone that mapped the terrain for avalanche prediction
- Constructed simulation environment with Unreal Engine
- Collected and processed lidar data with python and used the data to generate a height map
- Formulated data validation strategy
- Achieved <0.2 meters of error in the generated map

Mechanical Keyboard PCB And Case **Hardware**
Personal Project *2022*

- Created a two-layer PCB with USB type C and STM32 microcontroller, working physical prototype
- Designed PCB schematics using KiCad
- Communicated with Chinese-based PCB manufacturer
- Coded firmware in C++
- Gained experience in surface-mount soldering
- Designed acrylic case with AutoCAD

Automatic Real Estate Ranking System **Software**
Personal Project *2022*

- Created a python program that ranks real estate properties based on their estimated value for tax sales
- Worked with Google Maps, Redfin, and US Census API
- Designed and implemented a GUI with PyQt5
- Plotted data points on a map for data visualization

Skills

Computing
- C++, Python, MATLAB
- Arduino
- KiCAD (PCB Design)
- LTspice

Languages
- Chinese Mandarin, fluent
- English, fluent

Soft Skills
- Technical Documentation
- Event Organization
- Communication