Justin Ng

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Education

University of Michigan   Ann Arbor, Michigan
Bachelor of Computer Engineering   Class of 2023

GPA: 4.0 Coursework: Autonomous Robotics, Embedded Control Systems, Embedded Systems Design, Computer Vision, Computer Organization, Data Structures and Algorithms, Logic Design, Linear Algebra

Cornell Tech   NYC, New York
Master of Electrical and Computer Engineering   Admitted, Class of 2024

Experience

Government Technology Agency   Singapore
Robotics Engineer Intern   May – Aug 2021

- Wrote the main driver program for a programmable logic controller (PLC) used in an autonomous airport trolley collection vehicle deployed at Singapore Changi International Airport
- Proposed and implemented a touchscreen interface to reduce maintenance time for robot operators
- Built power circuitry and wire harnessing for vehicle electronics

Government Technology Agency   Singapore
Frontend Developer Intern   May – Aug 2022

- Developed a dynamic, mobile-ready dashboard web application in ReactJS
- Implemented smart facility management features to support data logging from IoT devices
- Collaborated with backend developers to design RESTful API services

Multi-legged Robots and Animal Motion Team   Ann Arbor, Michigan
Undergraduate Robotics Researcher   Jan – Dec 2022

- Designed and assembled a custom micro quadcopter drone using an ESP32 microcontroller
- Wrote a flight simulation program for the PID controller of a configurable quadcopter in Python
- Coordinated team efforts and led communications with principal investigator

Michigan Mars Rover Team   Ann Arbor, Michigan
Embedded Hardware Team Member   Sep – Dec 2021

- Designed and manufactured printed circuit boards (PCBs) with Altium Designer

Michigan Housing   Ann Arbor, Michigan
Residential Advisor   Sep – May 2023

- Fostered a diverse and inclusive living community for 50 first-year undergraduate students
- Initiated bi-weekly events to promote community belonging, wellness and student diversity

Achievements

University of Michigan   Ann Arbor, Michigan
Dean's Honor List   Fall '20, Fall '21, Winter '21, Fall '22

Skills

Programming: C/C++, Python, Verilog, Matlab   AR/VR: Unreal Engine 5, Unity
Web: React JS, Spring Boot   Computer Vision: PyTorch
Embedded Systems: STM32, ESP32   Team Collaboration: Git, Jira