

YAN CHENG POON

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EDUCATION

University of Michigan, Ann Arbor

May. 2025

Bachelor of Science in Engineering - Computer Engineering, CGPA: 3.86

- Relevant Courses: Logic Design, Data Structure & Algorithms, Electrical Circuit Analysis, Intro to VLSI
- Focused and Specialized Field: Embedded Systems, Microsystems, Digital Systems Design, Chips Design

Taylor's University, Malaysia

May. 2023

American Degree Transfer Programme (Engineering), GPA: 3.84, Best Engineering Student Honor

WORK EXPERIENCE

University of Michigan Solar Car Team, Ann Arbor

Aug. 2023 – Present

Microsystems and Firmware Engineer

- Designed the schematics and layout for a PCB that controls the car's headlights, stop lights, and turn signals with Altium.
- Led in redesigning the dashboard PCB to integrate Battery Management System (BMS) controls to the dashboard.
- Assisted in the software and hardware integration of the car's sensors with the GPIO pins of the main MCU.
- Analyzed and rewrote the firmware code for the car's light and brake system to increase the response time by ~120%
- Developed a RTOS-based firmware that handles interrupts and schedules tasks for the MCU based on specific priorities.

Aerodyne Group, Malaysia

Jan. 2023 – Mar. 2023

Tech Research Intern

- Contributed to securing a \$5 million Unmanned Aircraft System (UAS) application development project.
- Worked with the project team on the prototype and pseudocode design of a UAS Traffic Management application.
- Assisted in designing the schematics and layout for a GPS and metrics tracker PCB to enable remote metrics tracking.
- Assisted in implementing infra-red, LiDAR sensors to drones by using Arduino and Embedded C programming.
- Performed research & analysis into emerging drone and chip technologies to fit clients' needs.

Taylor's University, Malaysia

Jan. 2022 – Dec. 2022

Calculus 1 and Physics 1 Instructional Aide

- Hosted tutoring sessions, discussion sessions, and office hours for 150+ students enrolled in Calculus 1 and Physics 1.
- Assisted professors in planning course contents/schedules, designing homework, and grading students' works.
- Implemented tailored academic support strategies resulting in the transformation of 8 students from initial 'Fail' grade to 'A'.

Global Cert, Malaysia

Dec. 2021 – Jan. 2022

Data Science Intern

- Performed data analysis on customer attrition and retention rate, market shares, and auction statistics.
- Developed trend prediction and decision-making models with Python to make business decisions based on market trends.
- Analyzed and summarized huge datasets with Power BI visualization tools.

RELEVANT EXTRACURRICULAR EXPERIENCE

Agents of Tech, Taylor's University

Oct. 2022 – Oct. 2023

President

- Led in curating tech workshops and training sessions on topics such as React and Arduino for over 200 like-minded club members.
- Hosted the biggest hackathon in college's history with 200+ participants and cash prizes amounting to more than \$7k.
- Secured sponsorships amounting to \$25k from 7 different tech companies and partnerships with Intel, Google, and Samsung.

Other Experiences, Personal Project and Accomplishments

- Check out <https://ycpoon.github.io/> for the complete list of experiences and personal projects.
- *Other Experiences:* Michigan Hackers Embedded Systems Team Co-Lead, Young Malaysian Engineers Finance & Sponsorship
- *Personal Projects:* 1) Worked on a project to build cheap \$80 computers as an initiative to provide orphans with access to computers. 2) Designed and developed an auto-parking robot using Arduino and object detection model training.
- *Accomplishments:* 1) Secured sponsorship totaling up to \$100k. 2) Competitions won: MSTW 2021 Hackathon, Kuala Lumpur Engineering & Science Fair.

ADDITIONAL INFO

Technical Skills: C/C++, Python, HTML, MATLAB, Verilog, VLSI, Arduino, Embedded C, React, Altium, STM32Cube

Language: English, Chinese, Malay, Cantonese

Awards: Best Engineering Student Award, University Honors, Dean's List, Taylor's Excellence Award, Book Prize Award