

Yu Xuan Chew

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EDUCATION

University of Manchester

Manchester, United Kingdom

BEng Electrical and Electronic Engineering

Sep. 2023 – Present

- First year result: 83.5%, including 76% in Electromagnetic Fields and 90% in Electronic Materials
- Collaborated closely in a team of 5 to innovate on a line-tracing buggy that can complete a racetrack within 2 minutes

HELP International School

Selangor, Malaysia

A-levels in Mathematics (A), Physics (A*), Chemistry (A*), Biology (A*) and EPQ (A)*

Sep. 2021 – Jul. 2023

- As head boy and senior student council representative, taken the initiative to successfully propose solar panel initiative to school board
- Wrote a 5000-word research paper for EPQ on the relevance of machine learning in the battle against cancer

EXPERIENCE

Robotics Project Engineer

Sep. 2023 – Present

University of Manchester Robotics Society

Manchester, UK

- Developed two year-long projects that involves technical skills (details below under 'Projects')
- Cultivated outstanding working relationships with teammates with excellent interpersonal skills

Data Management Intern

Jul. 2022 – Aug. 2022

Heritage Marketing & Interactive

Selangor, Malaysia

- Critically analysed and manipulated thousands of rows of raw data using Microsoft Excel and Microsoft Access to integrate it into the company database
- Extract, Transform and Load (ETL) classed data and performed Data Quality Check using tools like queries in Microsoft Access
- Taken the initiative to proactively and willingly learn many technical skills required in software mentioned to solve problems efficiently
- Modelled over 10000 rows of data to generate reports for company portal and clients using Power BI

PROJECTS

Artemis III | Python, Machine Learning

Sep. 2024 – Present

- Collect and analyse data from EMGs of the human arm using an 8 solenoid arm band to command a drone
- Incorporate Python and implement machine learning classification algorithm to identify hand gestures

Buggy | C++, Arduino

Sep. 2023 – May 2024

- Designed and built an autonomous buggy that uses an ultrasonic sensor to navigate through a random maze of at least 8 potential paths
- Developed C++ programming within 200 lines of code for the Arduino to manoeuvre buggy through a maze under 1 minute

Electronic Component Identifier | CAD Design, Machine Learning Algorithm

Mar. 2024

- Designed and 3D-printed a device using Fusion 360 that uses a camera to identify different electronic components
- Implemented Edge Impulse to use machine learning to classify and differentiate unique electronics with over 90% accuracy
- Integrated code from Edge Impulse into Arduino with built-in camera

POSITIONS OF RESPONSIBILITY

Academic Events Officer

Oct. 2024 – Present

University of Manchester Electrical and Electronic Society

Manchester, UK

- Collaborate and communicated with faculty, industry professionals and other STEM societies to design event content
- Prepare and execute biweekly academic events such as conferences and seminars to support students

PASS (Peer-Assisted Study Sessions) Leader

Sep. 2024 – Present

University of Manchester Department of Electrical and Electronic Engineering

Manchester, UK

- Coordinated closely with other PASS leaders as a team to brainstorm and direct weekly academic sessions for first year students to enhance learning experience

Director of Sponsorships

May 2024 – Present

Malaysian Students' Society of Manchester (MSSM)

Manchester, UK

- Proactively negotiate and communicate with large companies (including multinational with over 30000 employees) in both Malaysia and the UK to collaborate and sponsor the society
- Maintain and grow legal relationships with more than 15 companies across the globe

ADDITIONAL SKILLS

Coding / IT: Proficient in C and C++ Programming and Python through university and online courses. Completed online course in MATLAB and Simulink. Extensive skills in Microsoft Excel and Access through internship experience.

Languages: Fluent in English, Chinese Mandarin and Malay

INTERESTS AND ACTIVITIES

Representative of Manchester Debating Union with high achievements in tournaments. Active performer of the alto saxophone and member of the jazz society. Avid enjoyer of weekend hikes in the Peak District.