

EDUCATION

Nanyang Technological University, Singapore

Aug 2022 – Present

Bachelor of Engineering (Chemical and Biomolecular Engineering), Specialization in Machine Learning & Data Analytics

- Expected Honors (Higher Distinction)
- Relevant Courses: Machine Learning, Data Analytics, Thermodynamics, Reaction Engineering, Plant Safety

EXPERIENCE

Keppel, Real Estate Division

June 2025 – Aug 2025

Technical Services Specialist, Intern

- Rebuilt cost databases using SQLite/MySQL with relational models.
- Developed TypeScript **floor plan generator** producing top 10 optimized layouts; added AutoCAD DXF export.
- Applied **Python Library (NumPy, PyTorch)** linear regression for cost prediction (90% accuracy).
- Automated PDF data extraction with Power Apps AI Builder + Python.

Skyworks Solutions Inc.

Dec 2024 – May 2025

Quality Management Specialist, Intern

- Automated scrap case reviews via Power Automate/Apps, achieving 95% closure rate.
- Built Power BI dashboards with text analytics to detect 100 hidden mishandling cases, reducing losses by \$300K.
- Created Python + Azure PPT parser to extract key event data from reports/emails.
- Optimized internal workflows with US IT team, cutting error rate 15% and report time 20%.

ACADEMIC PROJECT

Undergraduate Research Experience on Campus (URECA) Project

Sep 2023 – June 2024

Optimization of 3D SU-8 Microstructures using Mask-less Lithography: Part 1 – Multi-layered structures

- Reduced microstructure size to 27 μm and print time by 30% via automation.
- Improved wafer fabrication efficiency 20%; enhanced imaging resolution 4 \times with SEM + oil immersion.

Institute of Engineering, Malaysia

Jan 2025 – Present

AVEVA Software Simulation Competition - MTH hydrogen storage system

- Lead team to design a 30% ROI hydrogen storage system with AVEVA simulations + manual calculations.
- Integrated PV cells to achieve 20% green / 80% blue hydrogen with carbon storage.

CO-CURRICULAR ACTIVITIES

American Institute of Chemical Engineers, NTU Student Chapter

Sep 2024 – Present

President

- Founded official NTU chapter, fostering professional development and industry connections.
- Organized industry workshops and networking events to enhance technical skills.
- Planned sustainability-driven hydrogen-fuel E-car competition using iodine-clock reaction.

Analytics and Data Science Club, School of Chemistry, Chemical Engineering and Biotechnology

Sep 2025 - Present

Vice-President

- Analysing semiconductor, chemical, and biomedical datasets on Kaggle using Python, SQL, and MATLAB, building predictive models, and showcasing insights through winter/summer projects open to students.
- Conducting machine learning experiments on diverse datasets (semiconductor, chemical, biomedical) and sharing results in student-accessible workshops and seasonal showcases.

College of Engineering

Oct 2023 – June 2024

NTU One Arena 2024 - Head Programmer

- Led 15-member team, developed robot use tutorials, and resolved technical issues for 130 participants from 24 schools.
- Built Python-coded robotic maze and competition schedule, reducing event transitions by 3 minutes.

Chinese Society

Sep 2023 – June 2024

Chinese Cultural Camp - Event Chairperson

- Managed a committee team of 30 members, ensuring efforts remained organized and coordinated.
- Oversaw budget planning, cutting down initial budget by \$3000 while assuring cultural promotion objectives are met.
- Devised an alternative activities format to ensure event continuity during participant shortages, preventing event cancellation.

Association of Malaysian Chinese Independent School Alumni (AMCISA)

Aug 2023 – Aug 2024

Freshman Orientation Activities – Programmer

- Planned and executed interactive games and activities using JavaScript and Google Apps Script, with integrated Google Sheets formulas for real-time tracking and record-keeping.
- Coordinated with different portfolios to ensure smooth procedures and seamless execution of events.

SKILL

Languages	: Proficient in English, Chinese and Malay, conversant in Spanish
Digital Skills	: MATLAB, Python, Excel, Arduino, Jupyter Notebook, Rising View, Power BI, Microsoft Power Platform, SQL, DAX/M language, JavaScript, Google Apps Script,.NET, React, Java, C, AVEVA, Aspen HYSYS, DWSIM
Lab Skills	: Wafer Fabrication, SEM Microcopy, Chemicals and Heat Management

AWARDS & ACHIEVEMENT

Scholarship	: Kuok Foundation Scholarship Recipient.
Award	: IMONST (International Mathematical Olympiad National Selection Test), Bronze Award – 2018 IChONST (International Chemistry Olympiad National Selection Test), Honourable Mention – 2018