

## EDUCATION

**Nanyang Technological University (NTU)**

Aug 2019 – May 2023

- **Bachelor of Engineering (Electrical and Electronic Engineering)**
- **Honours (Merit)**, CGPA: 3.94 / 5.00
- Specialization: **Info-Communications Engineering (Computer Engineering)**
- Relevant Modules: (1) *Introduction to Computational Thinking* (2) *Data Structure and Algorithms* (3) *Introduction to Data Science and Artificial Intelligence* (4) *Computer Communications* (4) *Web Application Design* (5) *Artificial Intelligence and Data Mining* (6) *Information Security* (7) *Operating Systems* (8) *Software Engineering* (9) *Enterprise Network Design* (10) *Introduction to Databases*

## Virtual Training and Learning Development

- Coursera: (1) *Blockchain Basics* (2) *Defi Infrastructure* (3) *Defi Derivatives* (4) *Defi Opportunities and Risks*
- Codecademy: (1) *HTML* (2) *CSS* (3) *JavaScript* (4) *C#* (5) *Front-end Engineer* (6) *Back-end Engineer*
- Datacamp: (1) *Introduction to Python* (2) *Introduction to SQL* (3) *Introduction to R Programming*
- Udemy: (1) *The Complete Flutter Development Bootcamp with Dart* (2) *The Complete 2023 Web Development*

## SKILLS

- **Programming Language:** JavaScript, Python, C#, C++, Dart, Typescript, Solidity, Rust, Motoko
- **Web & Mobile Development:** HTML, CSS, Bootstrap, Tailwind CSS, Flutter, jQuery, EJS, React.js, Next.js, PHP, Node.js, MySQL, Firebase, MongoDB, Mongoose, Prisma
- **Software Applications:** Visual Studio Code, Github, Unity, Figma, Android Studio, LucidChart, Google Apps Script, Microsoft Azure Services, Microsoft Office 2022 (Excel, Word, PowerPoint), Visual Studio
- **Language:** Fluent Chinese, English, Malay

## ACADEMIC PROJECTS / MODULE PROJECT

NTU-EEE Module: **Final Year Project (FYP)**

July 2022 – May 2023

NTU Module Project: **Mental Health Application (InTouch) (Team Leader** of 4 Members)

- Developed a volunteer crowdsourcing mobile application to help mental health patients through multiple low-cost consultation sessions provided by psychological first aiders and multiple activity trackers (text diary, video diary, meditation, and drawing).
- Utilized Flutter, Android Studio, Dart, Azure Cosmos DB, and Firebase to develop the frontend and backend of the mobile application and utilized Azure Machine Learning and Open AI API to perform deep analysis on the real-time data provided by the users.

NTU-EEE Module: **Web Application Design**

Aug 2022 – Nov 2022

NTU Module Project: **Online Pizza Delivery**

- Designed sitemap, storyboard, wireframe, and databases using Figma and LucidChart.
- Developed a web application using HTML, CSS, JavaScript, MySQL, and PHP to enable customers to order pizzas online, view all the available promotions and redeem rewards through earned points.

NTU-EEE Module: **Machine Learning and Artificial Intelligence**

Oct 2022 – Nov 2022

NTU Module Project: **Sentiment Analysis**

- Developed a *natural language processing (NLP)* model to predict the sentiments of the product review where 0 represents negative sentiment and 1 represents positive sentiments with 90.87% accuracy using one hot encoder as feature format and *recurrent neural network (RNN)* as the classifier.
- Utilized natural language tool kit (nltk) and keras that successfully built out NLP model; analyzed data using numpy and pandas; visualized data using matplotlib and seaborn.

## Design and Build Immersive Game

Aug 2021 – July 2022

- Developed a 3D Escape Room Game using Unity and C# to participate in two major game development competitions, Independent Game Festival (IGF), and Game Development World Championship (GDWC).

NTU-EEE Module: **Design and Innovation Project (DIP)**

Aug 2021 – Nov 2021

NTU Module Project: **UAVionics**

- Developed a 10cm x 10cm mini-drone which able to fly semi-autonomously for stock-taking to reduce manual labor using a physical marker system named ArUco and achieved first place in our internal DIP competition.
- Utilized OpenCV Libraries for image recognition on QR Codes for stock scanning.

NTU-EEE Module: **Introduction to Data Science and Artificial Intelligence**

Jul 2020 – Nov 2020

NTU Module Project: **Prediction of Cuisine based on Recipe (Team Leader** of 3 Members)

- Critically analyzed statistical data of "What's Cooking?" dataset; visualized data using matplotlib and seaborn.
- Utilized Python and Scikit-Learn Library that successfully enabled *Linear Regression Model* to predict cuisine type with 80% accuracy based on the given recipe.

## ACCOMPLISHMENTS

---

### NTU Blockbash 2023 (Finalist – Top 5)

- Developed a web application to tackle issues of digital wealth inheritance which includes lack of contingency plan, loss of will, abuse of trust, and long processing time through smart contracts by utilizing React.js and Solidity.

### Crypto.com Next Gen Student Hackathon 2022 (4<sup>th</sup> Place)

- Developed a web application to verify different personal credentials to tackle the issue of fake certificates and reduce the duration needed for background verifications through the issuance of tokens via smart contract by utilizing HTML, CSS, JavaScript, and Polygon API.

### NTU X LemmaTree POCathon 2022 (Finalist – Top 6)

- Developed a job searching platform (Connectus) for job seekers to apply for jobs and for employers to discover potential candidates securely, trustworthy, and effectively through the application of trusted data (Verifiable Credentials) from Affinidi API, HTML, CSS, JavaScript, EJS, Bootstrap, and MongoDB.

### NTU Blockchain Innovation 2022 (Finalist – Top 10)

- Developed a web application using HTML, CSS, JavaScript, Metamask, and web3.py and pitched ideas of using blockchain technologies to verify multiple documents required to travel between two different countries during Covid-19 to ensure validity and improve the efficiency of documents checking before boarding.

## INTERNSHIP EXPERIENCES

---

### Makino Asia, *Software Engineer Intern*

Jan 2022 – May 2022

- Developed 3D Model Web Viewer with HTML, CSS, JavaScript, Angular, and three.js.
- Coordinated with software developers and quality assurance on designing UI/UX solutions for Web Applications with Figma and designing application workflow with LucidChart.
- Streamlined company's supplier production line with Zoller TMS (Tools Management System), a software to complete tools, individual components and manage tooling sheets.

## LEADERSHIP / CO-CURRICULAR ACTIVITIES / COMMUNITY INVOLVEMENT / VOLUNTEERISM

---

### Garage@EEE, *VP Operations*

May 2022 – May 2023

- **Led** a team of 50 Operations Members in inventory management, space management, machine safety management, and equipment management in Garage@EEE.
- Built a project storage system for students to book and store their projects by using Google Apps Script.
- Organized and managed different machinery workshops (3D Printing, Laser Cutting, PCB Milling, Bandsaw, and Drilling) to equip students with the technical skills required to operate the machines safely.
- Manage budget, procurement, and reimbursement claims for Garage@EEE.

### IES-NTU Student Chapter, *President*

Aug 2020 – Aug 2021

- **Led** and oversee 15 management committees and 25 sub-committees in planning and organizing events.
- Proposed changes in committee structure to improve team cohesiveness and operation efficiency.
- Refined communications and publicity between IES Student Chapters and Headquarters.
- Organized MATLAB and Simulink workshops in collaboration with MathWorks.

### Rotaract Club, *Sub-Committee Member (Community Service Division)*

Jul 2020 – Aug 2021

- Planned door-to-door food and drink distribution for the elderly despite the pandemic.
- Volunteered in Willing Hearts by helping with kitchen cleaning after their daily mass meal preparation.
- Helped in Ah Gong Ah Ma (AGAM), an event to celebrate Chinese New Year with elderlies at Beo Crescent.
- Helped in Janitor Appreciation Project (JAP) to show appreciation to our university's janitors.

### ENITIO, *VP Logistics and Financial Controller*

Feb 2021 – Aug 2021

- **Led** a team of 5 subcommittees on event planning for Logistics which includes Virtual Campus Tour and Food Hunt for freshmen to familiarize themselves and explore the school surroundings virtually.
- Managed budget and reimbursement claim for ENITIO, a freshmen transition orientation program for the School of Electrical and Electronic Engineering with an intake of 144 freshmen.
- Managed, planned, and purchased welfare pack items for freshmen and committees.

### ESCENDO, *Chief Tech*

Sep 2020 - Jan 2021

- **Led** a team of 4 subcommittees to organize a Machine Learning and Data Analytics workshop for ESCENDO, a makeathon organized by Garage@EEE with a number of 150 participants.
- Collaborated with VP Tech and two Chief Techs in coordinating all the workshops, managing manpower allocations, and providing technical support for participants when help is required.