

EDUCATION

Nanyang Technological University (NTU)

Aug 2019 – Jul 2023

- **Bachelor of Engineering (Electrical and Electronic Engineering)**
- **Honours (Merit)**
- 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* (5) *Web Application Design* (6) *Artificial Intelligence and Data Mining* (7) *Information Security* (8) *Operating Systems* (9) *Software Engineering* (10) *Enterprise Network Design* (11) *Introduction to Databases*

VIRTUAL TRAINING AND LEARNING & DEVELOPMENT

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

ACADEMIC PROJECTS / MODULE PROJECTS

NTU-EEE Final Year Project: **Mental Health Application (Team Leader of 4)** Jul 2022 – May 2023

- Developed volunteer crowdsourcing mobile application to help mental health patients through providing low-cost consultation sessions by psychological first aiders and various activity trackers (text diary, video diary, meditation, and drawing).
- Designed sitemap, storyboard, high-fidelity wireframe, and database schemas.
- Utilized **Dart Programming** (Flutter), Android Studio, Azure and Firebase to develop frontend and backend of mobile application; deployed Azure Machine Learning and Open AI to perform sentiment analysis on real-time data provided by the users.

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

Aug 2022 – Nov 2022

Module Project: **Online Pizza Delivery (Team Leader of 2)**

- Employed Figma and Lucidchart to design sitemap, storyboard, wireframe, and databases.
- Applied 5 software programming (i.e., **HTML, CSS, JavaScript, MySQL, PHP**) to design, code and develop web application for online consumers to order pizzas with available promotions, redeem rewards, and earned points.

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

Oct 2022 – Nov 2022

Module Project: **Sentiment Analysis** (Team of 3)

- Developed Natural Language Processing (NLP) Model to predict sentiments of product review where “0” represented negative sentiment and “1” represented positive sentiments; achieved 90.87% accuracy using One Hot Encoder as feature format and Recurrent Neural Network as classifier.
- Successfully utilized Natural Language Toolkit (NLTK) and framework “Keras” to design, code and build NLP Model; analyzed data using Numpy and Pandas and visualized data using Matplotlib and Seaborn.

NTU-EEE Design and Innovation Project: **UAVionics** (Team of 5)

Aug 2021 – Nov 2021

- Deployed **ROS and Python Programming** with Physical Marker System “ArUco” to design, code and create 10cm X 10cm Drone to fly semi-autonomously for stock-taking for reducing manual labour.
- Utilized OpenCV Libraries for image recognition on QR Codes for stock scanning.
- **Achieved 1st Placing** at *Design & Innovation Project Competition*.

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

Jul 2020 – Nov 2020

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

- Critically analyzed statistical data of “What’s Cooking?” dataset; visualized data using Matplotlib and Seaborn.
- Utilized **Python Programming** and Scikit-Learn Library that successfully enabled *Linear Regression Model* to predict cuisine type with 80% accuracy based on given recipe.

COMPETITION PROJECTS & ACCOMPLISHMENT

- NTU Blockbash 2023 Project: **Digital Wealth Inheritance Application** (Team Leader of 3) Apr 2023
- Deployed **Solidity Programming and Hardhat** to design, code and develop DApps to tackle possible issues of digital wealth inheritance which included lack of contingency plan, loss of will, abuse of trust, and long processing time through blockchain technologies.
 - **Attained Top 5** among 15 competing groups.
- Crypto.com Next Gen Student Hackathon: **Credential Authentication App** (Team Leader of 5) Oct 2022
- Applied **Solidity Programming, Polygon API and Hardhat** to design, code and create DApps to verify different personal credential issues (e.g., fake certification and authentication) thereby reducing duration for background verifications through issuance of soulbound tokens (SBTs).
 - **Achieved 4th Placing** among 50 competing groups.
- NTU Blockchain Innovation Project: **Blockchain Technologies & App** (Team Leader of 2) Mar 2022
- Employed **Solidity Programming** to design, code and build DApps with ideas related to Blockchain Technologies to verify multiple travel documentation required to travel between two different countries during pandemic; ensured validity with documentation checking efficiency intact before boarding.
 - **Achieved 4th Placing** among 20 competing groups.

INTERNSHIP EXPERIENCES

- Makino Asia, **Software Engineer Intern** Jan 2022 – May 2022
- Streamlined company's supplier production line with Zoller TMS (Tools Management System) - a software to complete tools, individual components and manage tooling sheets.
 - **Internship Project 1:** Utilized 4 software programming (i.e., **HTML, CSS, Java Script, Three.js**) to design, code and develop 3-D Model Web Viewer for company's product, Job Manager with Angular.
 - **Internship Project 2:** Coordinated with software developers and quality assurance on designing UI/UX solutions with Figma for web applications and application workflow design based on Agile Methodologies.
- Synagie Corp, **Business Development Intern** Jan 2019 – Jun 2019
- Coordinated with company partners on product listings and addressed issues on orders fulfillment.
 - Analyzed sales pricing data across multiple E-commerce platforms to improve product's pricing mechanisms.
 - Utilized MS Excel to generate and compile daily business sales reports for various stakeholders' review.

LEADERSHIP / CO-CURRICULAR ACTIVITIES / COMMUNITY INVOLVEMENT / VOLUNTEERISM

- NTU Garage@EEE, **Vice President (Operations)** May 2022 – May 2023
- IES-NTU Student Chapter, **President** Aug 2020 – Aug 2021
- NTU Rotaract Club, **Sub-Committee (Community Service)** Jul 2020 – Aug 2021
- NTU ENITIO, **Vice President (Logistics & Financial Controlling)** Feb 2021 – Aug 2021
- NTU-ESCENDO, **Chief Tech** Sep 2020 - Jan 2021

SKILLS

- **Languages:** Fluent in English, Chinese (Mandarin) and Malay
- **Software Programming:** Python, JavaScript, Typescript, C#, Dart, C++, R, Solidity, Java, Rust, ROS
- **Software Applications:** Visual Studio Code, Visual Studio, GitHub, Figma, Lucid Chart, Google Apps Script, Microsoft Azure, Unity, Android Studio, Microsoft Office 2022 (Excel, Word, PowerPoint), Jira, Confluence, ZOOM, MS Team
- **IT Tools / Libraries / Frameworks:** HTML, CSS, SASS, Bootstrap, Tailwind CSS, jQuery, EJS, React.js, Vue.js, AngularJS, Next.js, Nest.js, PHP, Node.js, Express.js, MySQL, SQL Server, Firebase, MongoDB, Mongoose, Prisma, Git, Postman, REST API, Flutter, Hardhat, Web3.js, Ethers.js, thirdweb
- **AI & Machine Learning:** Matplotlib, Pandas, NumPy, Seaborn, OpenCV, NLTK, Azure ML