Lai Zi Qing

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EDUCATION

Nanyang Technological University (NTU)

Aug 2020 - Jul 2024

· Bachelor of Engineering (Electrical and Electronic Engineering)

· Honours (Merit)

Specialisation: Info-Communications Engineering (Computer Engineering)

• Relevant Modules: (1) From Computational Thinking to Programming (2) Data Structure and Algorithms (3) Introduction to Data Science and Artificial Intelligence (4) Web Application Design (5) Information Security (6) Artificial Intelligence and Data Mining (7) Computer Communications (8) Enterprise Network Design (9) Software Engineering

Virtual Training and Learning & Development

• Relevant Modules (LinkedIn Learning): (1) Learning Linux Command Line (2) Learning TypeScript (3) Learning the JavaScript Language

INTERNSHIP EXPERIENCE

Seagate Singapore International Headquarters Pte Ltd, Engineering Intern

Jan 2023 - Jul 2023

- Executed testing on storage devices, ensuring they met specifications and performance requirements.
- · Analysed failures encountered during testing and validated bugs with functional teams.
- Utilized automation tools to resolve and improve manual testing tasks.

ACADEMIC PROJECTS / MODULE PROJECTS

NTU-EEE Final Year Project: *Mobile Application Development*

Aug 2023 - May 2024

- Developed an Android mobile application using **Dart** and the Flutter framework to capture graphic or text information from forms.
- The data is transmitted to a server for secure storage and future retrieval.
- Integrated **Firebase** for secure data storage and user authentication.

NTU-EEE Module: Enterprise Network Design

Jan 2024 – May 2024

Module Project: Network Design and Address Allocation (Team of 2)

- Designed and assigned IP addresses across multiple subnets and supernets, minimizing address wastage and enhancing routing efficiency.
- Configured ACLs for security policies and tested using Cisco Packet Tracer.

NTU-EEE Module: Web Application Design

Aug 2023 - Nov 2023

Module Project: Web Portal for Online Purchase of Fashion Clothes (Team of 2)

• Developed an online fashion retail web portal that allows customers to browse and purchase items online with **HTML**, **CSS**, **PHP**, and **SQL**.

NTU-EEE Design and Innovation Project: **Interactive Visual Object Segmentation by** Aug 2022 – Nov 2022 **Deep Learning (Team Treasurer** of 7)

- Designed a GUI using **Tkinter Programming** for visualization and demonstration purposes.
- Recognized as **Champion Team** in the "Machine Learning and Data Analytics" program.

NTU-EEE Module: *Introduction to EEE Design and Project*

Jan 2022 - Apr 2022

Module Project: **Design Automatic Volume Controller for Audio Amplifier** (Team of 2)

• Designed an Automatic Volume Controller using LabVIEW and NIE-ELVIS hardware.

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

Aug 2021 – Nov 2021

Module Project: *Prediction of Road Accident* (Team of 5 Members)

• Used **Python** and <u>Machine Learning Models</u> (Random Forest, Decision Tree) to predict accident severity.

WORK EXPERIENCE

Nanyang Technological University, Student-Assistant

Dec 2020 - Jul 2021

Organized research paper submissions and checked copyright policies for compliance.

• Utilized Microsoft Excel to sort and filter data.

CO-CURRICULAR ACTIVITIES

NTU Chinese Society, <u>Secretary & Financial Controller</u> (Mid-Autumn Festival)

Sep 2020 - Sep 2021

• Coordinated administrative tasks, recorded minutes, and managed financial reports for events.

NTU-AMCISA Club, *Orientation Group Senior* (Freshmen Orientation)

Aug 2021 - Nov 2021

• Guided freshmen in adapting to university life and student affairs, organized online bonding activities.

SKILLS

- · Languages: Proficient in English, Chinese and Malay
- Software Programming: Python, C, TypeScript, HTML, CSS
- Frameworks & Libraries: Flutter, React.js, Tailwind CSS v4, TensorFlow, Pandas, NumPy
- **Software Tools**: Cisco Packet Tracer, Docker, MATLAB, Tkinter, LabVIEW, LT-Spice XVII, XAMPP, Microsoft Office (Excel, Word, PowerPoint, Outlook)
- AI & Machine Learning: Decision Tree, Random Forest Classification