

## Lai Zi Qing

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Portfolio: <https://lai-zi-qing-portfolio.vercel.app/>

### EDUCATION

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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

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Seagate Singapore International Headquarters Pte Ltd, **Engineering Intern**

Jan 2023 – Jul 2023

- Executed testing on storage devices via WBI, ensuring they met specifications and performance requirements across various systems.
- Analysed test failures encountered during testing and collaborated with functional teams to validate and debug issues.
- Utilized automation tools to streamline and improve manual testing processes.

### ACADEMIC PROJECTS / MODULE PROJECTS

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

Aug 2023 – May 2024

- Developed an Android mobile application using **Dart** and the **Flutter** framework to extract textual and graphical information from printed forms using OCR technology.
- Integrated with Firebase services for secure data storage and retrieval.
- Improved user experience by implementing responsive UI design and validating input data before submission.

NTU-EEE Module: **Enterprise Network Design**

Jan 2024 – May 2024

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

- Planned and implemented a hierarchical network with subnetting and supernetting to minimize address wastage.
- Applied Access Control Lists (ACLs) to enforce inter-subnet security policies.
- Validated and tested network setup using Cisco Packet Tracer simulation software.

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

Aug 2023 – Nov 2023

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

- Built a fashion e-commerce website using **HTML, CSS, JavaScript, PHP, and MySQL**.
- Implemented key features such as product catalog, user login, shopping cart, and checkout.
- Designed a responsive layout and tested it using **XAMPP** for local development.

### SKILLS

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- **Languages:** Proficient in English, Chinese and Malay
- **Programming Languages:** HTML, CSS, Python, C, TypeScript, JavaScript
- **Frameworks & Libraries:** Flutter, Dart, React.js, Tailwind CSS, Firebase, 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