TAN LING JEN

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PROFESSIONAL SUMMARY

A highly motivated final year electrical engineering student with a 2nd major in computing. Keen interest and passion for programming and engineering.

EDUCATION

Bachelor of Engineering   **National University of Singapore (NUS)**   **Aug 2021 – May 2025 (Expected)**
- Double Major in Electrical Engineering and Computing (D&E)
- Academics: CGPA 4.27 / 5.00 (Honours with Distinction)

Relevant Modules: Data Structures and Algorithms (*Java*), Programming Methodology I/II (*Python, OOP*), Microcontroller Programming and Interfacing (*ARM Assembly, C*), Introduction to Machine Learning (*Python*), Data Science for the Internet of Things (*Python*), Data Engineering Principles (*Python, AWS*), Computer Networks

Certifications: [Machine Learning and AI with Python by HarvardX](#), [Introduction to Java Programming I by HKUSTx](#)

WORK EXPERIENCE

Engineer, Intern   **DSO National Laboratories**   **May 2024 - Aug 2024**
- Explored in-memory computing for hardware acceleration of Large Language Models (LLMs).
- Developed software for the computation of matrix multiplication on the Gemini Associative Processing Unit (APU).
- Conducted thorough performance profiling of software to evaluate optimization opportunities.

Associated Skills: C Programming, In-memory computing, LLM Processing Flow, Transformer Architecture

Software Engineer (Robotics), Intern   **ST Engineering (Land Systems)**   **Jan 2024 - May 2024**
- Awarded with the Intern @ ST Engineering Award.
- Implemented and integrated modules for 3D path planning and navigation of Q-UGVs.
- Developed algorithms for effective and robust traversability analysis of terrain.

Associated Skills: C++, ROS, Ubuntu, Robotics Navigation, Bash

Systems Engineer, Intern   **NCS Group (NCS Engineering)**   **May 2023 - Jul 2023**
- Constructed interactive front-end UI for an active enterprise-level web application project utilizing React.
- Performed systems hardening, troubleshooting, and maintenance of devices deployed across multiple exhibitions.

Associated Skills: React, JavaScript, HTML, OS Hardening, Bash, C#, Troubleshooting

R&D Engineer, Intern   **Panasonic R&D Center Singapore**   **May 2022 - Jul 2022**
- Managed and co-authored the requirements analysis, system architecture, and wireframe design documentation.
- Modelled the prototyping and testing of LED display panel (Soft Soldering).

Associated Skills: Technical Documentation, Requirements Analysis, System Architecture

NSF Training Instructor, 3rd Sergeant   **Singapore Armed Forces (SAF)**   **Apr 2019 - Apr 2021**
- Completed the Logistics Specialist Cadet Course (Transport) and SAF Class 3/4 Driving Course.
- Oversaw and managed over 300 transport trainees on course in the School of Transport and Supply.

Associated Skills: Leadership, People Management, Effective Communication

PROJECTS

AI-Based Teaching Assistant   **Aug 2024 – Present**
- A chatbot that can clarify students' queries based on the resources for the specific course and online information.
- Final-Year Project as an NUS credit-bearing [EE4002D Design Capstone](#) module.

Spending Tracker (https://github.com/Jen999/spending-tracker**)**   **Aug 2023 – Nov 2023**
- Designed and developed an end-to-end Android app to address habitual spending, promoting financial responsibility.
- Pursued this personal project as an NUS credit-bearing [EG2606B Independent Work](#) module.
- Learnt full-stack mobile application development independently and UI/UX design under expert supervision.

Associated Skills: React Native, JavaScript, Firebase (Firestore, Cloud Functions), Figma

SKILLS & INTERESTS

- **Skills:** Python, C, C++, React, React Native, JavaScript, Java, Firebase, HTML, CSS, ROS, Ubuntu, Git, Bash, Web Development, UI/UX Design, Figma, Mobile App Development, Robotics Navigation, In-memory Computing
- **Languages:** English (Native), Mandarin (Proficient)