Chua Chen Yi

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Experience

AIoT Development Engineer (Internship)   *Sep/2025 - Apr/2026*
STMicroelectronics

- Designed an edge AI monitoring system for anomaly detection on live semiconductor equipment, introducing a capability not previously deployed and avoiding costly external solutions
- Established department-level rapid prototyping capability through CAD and additive manufacturing, eliminating reliance on central fabrication teams, reducing deployment turnaround time, and scaling the capability through internally designed and delivered workshops
- Designed and built reusable AIoT data acquisition and edge processing hardware, including custom PCBs and microcontroller-optimized edge AI pipelines

Student Research Assistant   *Dec/2024 - Sep/2025*
Singapore Institute of Technology

- Proposed and implemented a late fusion method for multimodal emotion recognition, supported by comprehensive experimentation, technical writing, and conference presentation, resulting in a first-author paper at APSIPA ASC 2025
- Translated a speaker anonymization research method into a practical, real-time system, implementing a modular PyTorch pipeline with experimentation, documentation, and handover for continued research use

Embedded Systems Engineer   *Oct/2021 - Feb/2023*
The Propz Company | Bugg Design & Services Pte Ltd

- Established embedded systems and additive manufacturing capabilities, enabling rapid, consistent prototyping that directly supported acquisition of multiple client contracts requiring interactivity and data collection
- Integrated electronics into existing inventory, introducing features that allowed reuse and extension of their lifecycle
- Automated data analysis and migration workflows to reduce friction when transitioning between web service providers

Publications

Speech Emotion Recognition via Entropy-Aware Score Selection   *Nov/2025*
Chen Yi Chua, et al. — Proceedings of APSIPA ASC 2025 [[DOI](#)]

Education

Singapore Institute of Technology
BSc (Hons) in Applied Artificial Intelligence   *Aug/2023 - May/2026*

Singapore Polytechnic
Specialist Diploma in Data Science (Vision and language Analytics) [CGPA 4.0]   *Apr/2023 - Sept/2023*
Specialist Diploma in Data Science (Artificial Intelligence)   *Apr/2022 - Mar/2023*
Diploma in Engineering with Business   *Apr/2015 - Mar/2018*

Certifications

AI.SG
AI4I - Foundations in AI   *May/2025*
AI4I - Literacy in AI   *Feb/2024*

Singapore Polytechnic
Certificate in Visual and Textual Data Analytics   *Sep/2023*
Certificate in Artificial Intelligence   *Mar/2023*
Certificate in Fundamentals of Data Science   *Sep/2022*

Wong Fong Academy
Perform Work at Height   *Feb/2022*

Skills

Languages   **Frameworks**
English, Chinese (Spoken)   PyTorch, TensorFlow

Programming Languages   **Platform & Tools**
C, C++, Python, SQL   Docker, Linux, Git
                                       PlatformIO, FreeRTOS

Hardware & Electronics   **Web**
Embedded Systems   HTML, CSS, React
Computer Networking   JavaScript
CAD & PCB Design
3D Printing, Laser Cutting