

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, additive manufacturing and laser engraving, 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

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 [Distinction]

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

English, Chinese (Spoken)

Programming Languages

C, C++, Python, SQL

Hardware & Electronics

Embedded Systems

Computer Networking

CAD & PCB Design

3D Printing, Laser Cutting

Frameworks

PyTorch, TensorFlow

Platform & Tools

Docker, Linux, Git

PlatformIO, FreeRTOS

EasyEDA

Web

HTML, CSS, React

JavaScript