En Hao Tew

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Education

University of Cambridge — Cambridge, UK
Bachelor of Arts (Honours) in Computer Science — *Oct 2025 – Jun 2028*

- Relevant modules: Algorithms, Machine Learning and Real World Data, Operating Systems

Hwa Chong Institution — Singapore
Singapore-Cambridge GCE A Levels, AAAA/AB with H3 Merit — *Jan 2017 – Dec 2022*

Experience

First Year Trading and Technology Programme — Apr 2026
Jane Street — *London, United Kingdom*

- 1/∼75 participants from 30 EMEA universities

AI Intern — May 2025 – July 2025
Home Team Science and Technology Agency — *Singapore*

- Conducted **comparative analysis of agentic frameworks** and presented findings to the core team of *Paperwork*, an internal AI tool designed to streamline procurement processes, to inform decision-making
- Prototyped *Paperwork* v2.0 using **LangGraph**, designing an **autonomous state graph of agents** with **tool-calling capabilities** that can extract and format key information from procurement documents
- Optimised Llama4-Scout prompts using **advanced prompt engineering techniques (chaining, meta-prompting)**, **improving response consistency by 15%** in benchmark tests

AI Engineer — Sep 2024 – Feb 2025
RSAF Agile innovation Digital, Republic of Singapore Air Force — *Singapore*

- Conducted rapid experimentation and research as part of AETHER, the experimental wing, to explore and integrate emerging technologies into the Republic of Singapore Air Force (RSAF)
- **Designed and built a modular search framework** enabling iterative deep search across search engines; deployed as a prototype to an operational exercise to assess its potential operational impact
- **First author** of one of the earliest research papers published by the RSAF; **accepted in ICMCIS 2025**
  DOI: 10.1109/ICMCIS64378.2025.11047642

Sergeant — June 2023 – Sep 2024
Basic Military Training, Singapore Armed Forces — *Singapore*

- **Led and mentored recruits with diverse physical and mental profiles**, tailoring training methods to support both military readiness and personal wellbeing, and developing strong skills in **empathy** and **adaptive leadership**
- **Independently developed an automated Excel assessment system** using Google Apps Script, **reducing grading time by 90%** and ensuring consistent feedback for **300+ trainees annually** since 2023
- **Honour Graduate**: Graduated top of leadership course (ranked 1st out of 16) in recognition of leadership, initiative, and performance

Hackathon Achievements

DSTA BrainHack Today-I-Learnt AI | *Whisper, Parakeet, Tesseract, SmolDocling, Python* — 2024, 2025

- ***Finalist in 2024; 2nd place in 2025***
- **Novice Track (2024)**: Fine-tuned Whisper for noisy audio data transcription in the Automatic Speech Recognition task, achieving 0.9997 accuracy on hidden test set
- **Advanced Track (2025)**: Benchmarked Whisper vs. Parakeet for ASR (selecting Parakeet for robustness), evaluated Visual Language Models against conventional OCR for document transcription, and solved the Surprise Challenge (reconstructing shredded documents) under strict time pressure

SMU LIT Hackathon 2025 | *LangGraph* — Sep 2025

- ***First Place Overall; Track Winners*** for Jus Mundi Track
- Designed an agentic AI workflow using LangGraph, grounded by closed source database to formulate international arbitration closing statements

Skills & Hobbies

Programming: Python, Google Apps Script, LaTeX
AI/ML: LangChain, LangGraph, LiteLLM, Whisper, Parakeet
Developer Tools: GitHub, Google AI Studio, Docker, MLFlow
Others: Data analysis (pandas), Prompt Engineering
Hobbies: Fencing (9 years, medalled in varsity events); Music (Piano for 15 years. Improvisation, songwriting)