

Cheng Yi Xing

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EDUCATION

- **Singapore Institute of Technology (SIT)** Penultimate Year
Bachelor's of Science in Applied Artificial Intelligence *Aug 2022 – Expected May 2025*
 - **Awards:** SIT Scholarship (Full ride), awarded to just 13 students among 3000+ first-year candidates

EXPERIENCE

- **PropNex Realty Pte Ltd** Singapore
AI Engineer Intern *Jan 2024 - Present*
 - Involved in the GenAI team, developing AI tools to optimize agent workflows using Next.js, FastAPI and OpenAI
 - Automated data generation and evaluation pipeline for finetuning LLM models, reducing manual data labelling and evaluation time by **80%**
 - Conducted iterative prompt engineering to optimize prompts to precisely align with use case and requirements.
 - Fine-tuned OpenAI GPT models, boosting evaluation accuracy from **50% to 94%**, meeting project requirements.
- **Singapore Institute of Technology** Singapore
Software Engineer *Apr 2023 - Dec 2023*
 - Developed a web app with ReactJS and Firebase to collect audio and annotation data from **1000+ students**, achieving a **95% reduction in human error**.
 - Led the development of multi-lingual audio-to-text transcription and segmentation API with WhisperAI and FastAPI, **reducing transcription time by 90%**
 - Optimised model parameters to achieve **10% reduction in Character Error Rate (CER)** and **20% improvement in timestamp accuracy**
 - Containerized the API using Docker and leveraged CUDA GPU capabilities to enhance performance by **700%**
- **Redfluencer** Singapore
Software Engineering Intern *Apr 2022 - Nov 2022*
 - Delivered mobile app features with React Native, resulting in a **20% increase in user engagement**.
 - Addressed bugs, leading to a **reduction in crashes** and a **15% improvement in user satisfaction scores**.
 - Initiated the design of certain app's features, including the redesign of the app's reward system

AWARDS

- **1st Place: SIT x Target Media x People's Association - BeyondTheScreen** Nov 2023
Created interfaces that display personalised content based on registered bluetooth devices nearby, with a CMS
- **2nd Place: SIT x Govtech - Hackrift** Aug 2022
Designed a mobile app aimed at helping elderly connect with each other through similar interest and location

PROJECTS

- **Speak Matrix Pro – Wearable Public Speaking Enhancement Device** Mar 2024
 - Designed and implemented an AIoT system for real-time audience engagement analysis with Raspberry Pi
 - Developed RESTful APIs and implemented MQTT communication protocols to ensure efficient data handling and device-to-cloud integration, aligning with industry standards for IoT development.
 - Developed a user-friendly dashboard using Next.js, enabling users to interact with an IoT device and view detailed post-presentation analytics
- **Intelligent Autonomous Robot Car** Nov 2023
 - Engineered an autonomous 2-wheel robot car utilizing a Raspberry Pi Pico microcontroller, enhancing control with a PID system for precise navigation and obstacle avoidance.
 - Integrated ultrasonic, infrared, and magnetometer sensors to achieve obstacle detection and avoidance
 - Incorporated RTOS into the autonomous robot car project, leveraging real-time operating system capabilities to enhance task management and scheduling.

SKILLS AND TECHNOLOGIES

- **Languages and Libraries::** Python (+ Pytorch, Flask, FastAPI, Pyspark, Selenium, Pandas, NumPy), JavaScript (+ React, React Native, Next.js, Express.JS), Typescript, PHP, Java, C, SQL, NoSQL
- **Technologies::** Firebase, Supabase, Docker, Pinecone, Redis, AWS (S3, EC2, RDS), Raspberry Pi, MQTT, REST API