

Cheng Yi Xing

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EDUCATION

- **Singapore Institute of Technology (SIT)** Penultimate Year
Bachelor's of Science in Applied Artificial Intelligence; GPA: 4.21/5.0 Aug 2022 – Expected May 2025
 - **Awards:** SIT Scholarship (Full ride), awarded to just 13 students among 3000+ first-year candidates

EXPERIENCE

- **Singapore Institute of Technology** Singapore
Software Engineer Apr 2023 - Dec 2023
 - **Data Collection:** Developed an application to collect audio and annotation data from **1000+ students**, achieving a **95% reduction in human error**. (*ReactJS, Firebase, MongoDB, ExpressJS*)
 - **Automatic Speech Recognition:** Led the development of a multi-lingual audio-to-text transcription API, resulting in **reduced transcription time by 90%** (*Whisper, FastAPI, Pytorch*)
 - **API Testing:** Conducted rigorous testing of the API, ensuring stability and resilience across diverse use cases.
 - **Parameter Optimisation:** Optimised model parameters to achieve **10% reduction in Character Error Rate (CER)** and **20% improvement in timestamp accuracy**.
- **Mofunland** Singapore
Full Stack Developer Nov 2022 - Jan 2023
 - **Web Development:** Led end to end design and development of webpage for Mofunland cruise event, incorporating payments through Stripe (*ReactJS, Stripe, Stripe*)
 - **Conversion Success:** Achieved an outcome with all tickets sold out and **total sales exceeding \$100,000**.
 - **Booking System:** Implemented a booking system with **automated email notifications** to customers resulting in smoother user experience. (*ExpressJS, mySQL*)
- **Redfluencer** Singapore
Software Engineering Intern Apr 2022 - Nov 2022
 - **Mobile App Development:** Collaborated closely with founders to effectively deliver mobile app features bi-weekly resulting in a **20% increase in user engagement**. (*React Native, Firebase*)
 - **UI/UX Design:** Initiated the design of certain app's features, including the redesign of the app's reward system
 - **Bug Resolution:** Identified and addressed bugs, leading to a **30% reduction in app crashes** and a notable **15% improvement in user satisfaction scores**.
- **OrangeTee & Tie** Singapore
Data Analyst Intern Mar 2018 - Oct 2018
 - **Data Visualization:** Implemented analytics solution (Tableau) to monitor and improve sales agent performance.
 - **Presentation:** Presented dashboard to external stake holders, including ministers and senior management of OrangeTee & Tie

AWARDS

- **Top 3: 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
- **3rd Place: PMI (Project Management Institution) - SG Student Competition** Oct 2023
Devised project management plan for implementing gen AI solutions in customer service and order processing
- **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
- **1st Place: IMDA - Tableau Data Stories of Singapore Competition** Nov 2018
Designed a dashboard to educate waste generation in Singapore and presented to panel of judges (Tableau)

PROJECTS

- **Digiace Official Website:**
 - **Data Visualization:** Implemented analytics solution (Tableau) to monitor and improve sales agent performance.
 - **Presentation:** Presented dashboard to external stake holders, including ministers and senior management of OrangeTee & Tie
- **InClubSIT:** Centralised platform for SIT students to find and join clubs, and get notified of upcoming events
- **MonoSeg:** Optimized semantic segmentation on cell data, conducted accurate evaluations with advanced metrics
- **EuroSat:** Leveraged both RGB and hyperspectral data, integrating predictions into a custom neural network
- **Rizzipe:** Application to recommend recipes based on ingredients identified by custom object detection model
- **Hoobi:** Digital loyalty program web app for small businesses, with dashboard to track customer analytics
- **Diario:** Mental health journaling application with AI diary summarization and sentiment analysis

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