# TOH MING CHUN

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## Skills and Proficiencies

**Languages:** Python, Golang, C, C++, HTML, CSS, Verilog, SQL, Javascript, Java
**Libraries/Frameworks:** React, React Native, NextJS, Astro, Vue, Django, FastAPI, python-telegram-bot, TailwindCSS, Framer Motion, Zod, Astro, Typescript, Prisma ORM, Jest, Cypress
**Tools/skills:** Docker, AWS, Git, Github Actions, OpenAPI, Supabase, OpenAI, Stripe, SST, LaTeX, Lumerical FDTD, Microcontroller bare-metal programming, CI/CD, unit testing, E2E testing

## Experience

### Software Engineer @Entroview — APR 2024 – SEP 2024

- Interned in Paris at a startup Entroview, developing the frontend and backend of the webapp of the first product.
- Implemented many features of the application, including data tables, drag and drop UI, report PDF generation and the backend REST API. Technologies used include React, Material UI, Golang, Docker, OpenAPI and MariaDB.

### NUS Orbital Artemis (App development project - highest level of achievement) — APR – AUG 2023

- Developed StudyStash, a web application which serves as a database for exam resources, where users can share cheatsheets, notes, past papers and solutions to aid others in revision. (https://studystash.vercel.app/)
- Developed both frontend and backend sides, as well as making infrastructure decisions. Technologies used include NextJS, Prisma ORM, Planetscale SQL database and Google OAuth, as well as AWS S3 and Cloudfront.

### Codesprint PSA 2022 hackathon — SEP 2022 – OCT 2022

- Developed backend side, utilizing python web framework Django to code a full stack web app, which introduces a gamified platform with socializing elements added to a traditional platform for planning work and tasks in the workplace.
- Placed among top 15 teams.

### code_exp 2022 hackathon — JUN 2022

- Developed a telegram chatbot with python-telegram-bot library, which includes multiple features to ensure mental wellbeing of National Service personnel.
- Utilised Google's DialogFlow, as well as a Flask webapp and a SQLite database.

## Personal projects

### AI Icon Generator — FEB – APR 2024

- Solo developed and deployed a SaaS application (https://aiicongen.com/)
- Technologies used include NextJS, Supabase, Google OAuth and Stripe, with deployment using SST on AWS.

### WhereToEat — NOV 2023 – FEB 2024

- Worked on WhereToEat, a Progressive Web App (PWA) which uses the Google Places API to recommend food and attractions. (https://wheretoeat.pages.dev/)
- Solo developed both frontend and backend sides, as well as making infrastructure decisions. Technologies used include FastAPI, Vue and Docker. Deployed on the web and also as a PWA on the Google Play Store.

### Lifehack 2023 hackathon — JUN 2023

- Developed a gamified travel planning and tracking app, which allows users to complete "quests" and earn points when going on holidays to support the tourism industry.

- Developed both frontend and backend sides. Technologies used included NextJS, Prisma ORM, Planetscale SQL database and Google OAuth.
- Placed among top 15 teams.

**Expense tracker** JAN – MAR 2023

- Utilised python-telegram-bot library alongside python web framework Django, PostgreSQL database and Bootstrap framework to create a telegram bot @spendlessmoneybot, which records expenses, that is viewed on a Django web application.

**Mahjong Counter Telegram bot** DEC 2022

- Developed a telegram bot @mahjongcounterbot with python-telegram-bot library which can count points and payouts for the game of mahjong.
- Hosted bot on an AWS EC2 instance.

**Robotics** JUL - DEC 2019

- Utilised VEX robotics integrated with LEGO EV3 to create a robot which would lift an 18-inch tablet to eye level and autonomously navigate the school's lab, displaying relevant information and videos based on experiment setups showcased across the lab, during events such as exchange visits and open house.

**Plasmonic research** JUL 2019 – DEC 2022

- Wrote and published two research papers in collaboration with A*STAR Institute of High Performance Computing, where charge distribution profiles on plasmonic nanoparticles were used to predict induced optical torque.
- Presented my work at a poster during an international conference (International Conference on Materials for Advanced Technologies 2019).

## Education

**Computer Engineering, National University of Singapore (NUS)** JUL 2022 – MAY 2025

- Current CAP of 4.78/5, with 110 units out of 160 completed.
- Taking an accelerated curriculum to graduate within 3 years under the NUS engineering scholars program
- Top students for Data Structures and Algorithms
- Teaching Assistant for CG1111A, Engineering Principles and Practices I, the introductory course for all Computer Engineering students.

**High Distinction, NUS High School of Math and Science** JAN 2014 – DEC 2019

- Graduation CAP of 4.8/5.0.
- Major with Honours in Math and Physics, Major in Chemistry.

## Language Proficiency

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|---|---|
| **Spoken** | English – fluent; Mandarin - fluent |
| **Written** | English – competent; Chinese - average |