# CHANG Yung-Hsuan

Updated on July 3, 2025

Email: eiken0525@gmail.com LinkedIn Website Latest version: my GitHub.

Education National Yang Ming Chiao Tung University Hsinchu City, Taiwan

Applied Mathematics (Grades) Aug. 2022 – Present

Exchange Program, École polytechnique, France Sep. 2024 – Jun. 2025

National Hsinchu Senior High School Hsinchu City, Taiwan

High School Degree, General Subjects

Aug. 2019 – Jun. 2022

### Honors Outstanding Student Overseas Exchange Scholarship

Jun. 2024

Supported by National Yang Ming Chiao Tung University and the Ministry of Education.

### **Mathematics Presidential Award**

Sep. 2023

Awarded by the Department of Applied Mathematics, National Yang Ming Chiao Tung University for my study in mathematics in the second semester of the 2022 Academic Year.

Honor Student May. 2023

Awarded by National Yang Ming Chiao Tung University for my study in the first semester of the 2022 Academic Year.

#### **Mathematics Presidential Award**

Feb. 2023

Awarded by the Department of Applied Mathematics, National Yang Ming Chiao Tung University for my study in mathematics in the first semester of the 2022 Academic Year.

### **Outstanding Performance Award**

Jun. 2022

Awarded by the Hsinchu City Government for my overall performances during my course of study at National Hsinchu Senior High School.

### Projects Study of Hitting Time and Probability

Jul. 2025 - Feb. 2026

### for Random Walks in One and Two Dimensions

College Student Research Project, National Science and Technology Council

Studying the hitting and probability of random walks in one and two dimensions, focusing on their asymptotic behavior, under Prof. CHINO Yuki. Funded by the National Science and Technology Council with project number 114-2813-C-A49-139-M.

### **Credit Card Fraud Detection Using Machine Learning**

Feb. 2025 - Jun. 2025

Group Project, CSC\_2S004\_EP - Machine Learning, École polytechnique

Developed a supervised machine learning pipeline to detect credit card fraud using real-world data with feature importance analysis and evaluation metrics. See this repository.

### **Chessbot Project: Cagnus**

Nov. 2024 – Jan. 2025

Group Project, CSC\_2S001\_EP - Object-oriented Programming in C++, École polytechnique Built a pure C++ chess engine without any non-standard libraries, achieving a final cross-match ranking of 9th out of 26 in the class. See this repository.

Before Finance Jun. 2024 – Jul. 2024

National Yang Ming Chiao Tung University Applied Mathematics Summer Research Internship, Department of Applied Mathematics, National Yang Ming Chiao Tung University Discussed topics in mathematical finance, including gambler's ruin problem and matringale, under Prof. CHINO Yuki.

# Work **Private Tutor**

Sep. 2024 - Present

Experience

Teaching and mentoring an eighth-grade student in mathematics (UK system), focusing on conceptual understanding and application; creating handouts with Typst.

### **Curriculum Material Developer**

Mar. 2025 - May. 2025

Aijia Tutoring

Created a mathematics handout booklet for junior high second-year students, based on the Taiwan National Curriculum, as a paid private tutoring commission.

## **Teaching Assistant**

Sep. 2023 - Dec. 2023 & Feb. 2024 - Jun. 2024

Department of Applied Mathematics, National Yang Ming Chiao Tung University Conducted office hours and marked exams for Calculus A (I) and Calculus A (II) under Prof. CHINO Yuki.

### **Academic Tutor**

Oct. 2023 - Nov. 2023 & Apr. 2024 - May. 2024

Center of Teaching and Learning Development, National Yang Ming Chiao Tung University Tutored international students in Calculus A (I) and Calculus A (II), conducting weekly sessions and creating handouts in Lagran.

Private Tutor Apr. 2023 – Jun. 2023

Helped a high school student prepare for the Advanced Subjects Test in Mathematics A, focusing on problem-solving and exam strategies.

#### **Part-Time Assistant**

Sep. 2020 – Jun. 2022

Office of Student Affairs, National Hsinchu Senior High School

Built a student self-learning platform, created event posters and videos, managed assembly slides, and digitized documents.

## **Student Club Instructor**

Sep. 2020 - Jun. 2021

Computer Software Design Club, National Hsinchu Senior High School

Taught coding in C++ (selection structure and number theory) and assisted club members during lectures.

# Skills **Programming Languages**

C++ and Python; LATEX and Typst.

# **Spoken Languages**

Mandarin (native), English (CEFR C1 certified), Japanese (JLPT N2 certified), French (roughly CEFR B1 level).