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EDUCATION

National Yang Ming Chiao Tung University

Sep. 2023 - Jun. 2027 (expected)

Hsinchu, Taiwan

C++, Python, JavaScript, PHP

Relevant Course Grades:

- Introduction to Computers and Programming A+
- Object-Oriented Programming A+
- Basic Programming A+
- Competitive Programming(I) A-
- ∘ Linear Algebra A+

SKILLS

C++ | Python | HTML | CSS | JavaScript | Node.js | PHP | MySQL | Linux | Arduino | Raspberry PI

Leadership & Activities

NYCU Makereal Labs (Maker Club)

Feb. 2024 - Present

- 9th Executive Teaching and Artistic Design
 - Develop projects and teach production methods and programming in community courses.
 - Collaborate with teaching staff to create projects and courses for maker camps and workshops, including competitive elements for participants.
 - Design the club mascot, promotional materials, and so on; utilize electronics and modeling knowledge for club souvenirs.
 - Represent the club and school in makerthons together.

2024 NYCU Maker's Summer Camp

Apr. 2024 - Jul. 2024

Director - Courses and Artistic Design

- Served as a C++ program director and project ideation instructor; prepared syllabus and guide staff; 86% of participants were satisfied with this course.
- Be a teaching assistant and group counselor, helping team cohesion, curriculum progress, problem-solving, and makerthon participation.

$2024 \text{ NYCU} \times \text{CPSHS JavaScript Workshop}$

May 2024 - Jul. 2024

Staff Member - Artistic Design & Teaching Assistant

- Designed event posters.
- Assisted students with questions and ensured they kept up with the course progress.
- $\circ\,$ Provided less on preparation suggestions to the instructor.

2024 NYCU Management Science Leadership Camp (Mansion of Savior)

Feb. 2024 - Jul. 2024

Staff Member - Artistic Design & Internet Publicity Department

- Designed event avatars and created props needed for camp activities.
- Assisted group counselors in managing team members and prepared performances and game activities with other staff members.

2024 NYCU Maker's Winter Camp

Nov. 2023 - Jan. 2024

- $Staff\ Member$ $C++\ Program\ Instructor$
 - Coordinated C++ instructors' syllabus, scope, and duration in class; prepared and taught C++ courses; 95% of participants were satisfied with this course.
 - Acted as a teaching assistant and group counselor, ensuring progress and addressing issues.

Awards & Projects

Alcohol Interlock - technical application and performance analysis

Mar. 2024 - May 2024

- 2024 MakeNTU AUO Corporate Award Third Place
 - We developed an alcohol interlock that continuously monitors the driver's alcohol reaction by several indicators during driving.
 - It includes a humorous generative AI virtual assistant aiming to address the flaws and inconveniences of current alcohol interlocks.
 - Alongside four partners, I co-created and competed in a makerthon project. My responsibilities are handling the simulation of the car interface webpage and integrating the ChatGPT API to make our alcohol interlock provide relevant feedback based on backend data.

GPE March 20, 2024

Score: 450 / 600; Rank: 4 / 87

• A GPE score of 240 is the graduation threshold for the Department of Computer Science at NYCU. It's more challenging than the CPE (Collegiate Programming Examination).

• This is the grading standard for Basic Programming, and I achieved A+.

1A2B - The Web Game Mar. 2023

Midterm Project for Information Technology Course

- Developed a website for playing the classic game 1A2B, featuring registration and login to record best scores and join the leaderboard.
- Built using HTML + CSS + JavaScript and PHP, hosted on WampServer, and stored player data in MySQL.
- $\circ\,$ During the class's free viewing period, over 58% of class mates participated in the 1A2B online ranking battle, with over 70% playing more than three games.

When Dino Hits the Genetic Algorithm

Jun. 2022

Final Report for Information Technology Course

- Attempted to crack the Chrome Dino game using the Genetic Algorithm.
- Utilized C++ to cultivate strong genes for 10 generations, each with a gene pool of 100 sets, a 10% crossover mutation rate, and approximately 1.9 × 10² possible genes. Integrated the cultivated genes into a modified JavaScript from GitHub to auto-control Dino getting scores and leaving the superior genes.

Big Data × Stock Market

Feb. 2022 - Jun. 2022

Autonomous Learning Final Presentation Project

- Scraped 20 years of monthly K-line data for FTSE TWSE Taiwan 50 Index components using Python; backtested parameter combinations and created analysis charts with Matplotlib to identify the most profitable strategy.
- Backtesting with optimal parameters and trading one board lot at a time showed a potential profit of nearly NT\$40,000,000 over 20 years.

Coding With Us! Mar. 2022

Project for 2022 Google Solution Challenge

- Developed an Android app with App Inventor for offline C++ and Python learning to support SDGs Quality Education.
- The app features a cute interface and fun mini-games in each chapter to enhance programming learning enjoyment.
- Co-edited HTML format tutorials, created the project with three partners and joined Google Solution Challenge as a GDSC TMU Project X member.
- I was mainly responsible for conveying competition information, project coordination, coding, interface and artwork design, app content planning, and intro video editing.