PO YU PAN

Taipei, Taiwan

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EDUCATION

National Cheng Kung University   **Expected Sep 2025 – June 2027**
Master of Science in Computer Science   *Tainan, Taiwan*

National Tsing Hau University   **Sep 2021 – Jun 2025**
Bachelor of Science in Interdisciplinary Program of Science   *Hsinchu, Taiwan*

COURSEWORK / SKILLS

Core CS Foundations
- Operating Systems
- Data Structures & Algorithms
- Computer Networks
- Database Systems
- Computer Architecture

Software, Systems & Tech
- Software Development
- Network Security
- Blockchain Technologies
- High Performance Computing
- Competitive Programming

AI & Data Science
- Artificial Intelligence
- Machine Learning
- Data Science
- Statistics
- Time Series Analysis

PROJECTS

Scaling Democracy on the Blockchain ↗ | Go, Cosmos SDK   02.2025 - 06.2025
- Designed a high-throughput blockchain e-voting system using a Proof-of-Authority (PoA) consensus.
- Achieved a simulated throughput exceeding **10,000 TPS** with sub-second latency.
- Developed three custom Go modules (**x/identity, x/votecoin, x/voting**) for core functionalities.

Undergraduate Research: Network Attack Detection | Python, ML   12.2023 - 10.2024
- Responsible for the data preprocessing pipeline for network traffic data.
- Implemented and compared **Genetic Algorithm (GA)** and **K-Nearest Neighbors (KNN)** against other models for attack detection.

Soul Warrior (2D Game) ↗ | TypeScript, Cocos Creator, Firebase   02.2023 - 06.2023
- Co-developed a 2D action game, implementing core mechanics like combat, physics, and animations.
- Integrated **Firebase** for backend services, including authentication and cloud saves.
- Designed and built a local **Player vs. Player (PVP)** multiplayer mode and intelligent BOSS AI.

Bomberman (2D Game) ↗ | C++, Allegro   09.2022 - 01.2023
- Developed a local multiplayer game with multiple modes (**1v3**, **2v4**).
- Implemented a dual-logic AI featuring reactive bomb dodging and proactive player targeting.

COMPETITIONS

AWS Generative AI Hackathon ↗ | AI Agent Developer   04.2025
- Developed a functional **AI agent** as the project's core within a 2-day timeframe.
- Applied modern **Generative AI techniques** to rapidly build a functional prototype.

Meichu Hackathon ↗ | Team Lead   10.2024
- Led a team to develop a project prototype from scratch within a **36-hour timeframe**.
- Defined the project's **technical direction** and managed team tasks in a high-pressure environment.

APAC HPC-AI Competition (Runner-up) ↗ | Team Member   06.2022 - 11.2022
- Achieved the **Runner-up prize** in a major international HPC-AI competition.
- Focused on maximizing **GPU utilization** and performance tuning on supercomputing infrastructure.

TECHNICAL SKILLS

Languages: C++, Python, JavaScript, TypeScript, SQL, R, Go
Developer Tools: VS Code, Vim
Frameworks & Runtimes: ReactJS, NodeJS, Cocos Creator, Allegro
Platforms & DevOps Tools: Docker, Firebase, Linux, Git, Conda