# Po Yu Pan

## Taipei, Taiwan

<u>Linkedin</u> <u>GitHub</u> <u>Website</u>

#### **EDUCATION**

## National Cheng Kung University

Master of Science in Computer Science

Expected Sep 2025 - June 2027

Tainan, Taiwan

#### National Tsing Hau University

Bachelor of Science in Interdisciplinary Program of Science

Sep 2021 - Jun 2025

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 ( $\mathbf{x}/\mathbf{identity}$ ,  $\mathbf{x}/\mathbf{votecoin}$ ,  $\mathbf{x}/\mathbf{voting}$ ) 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/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