

Po-Yu Chen

☎ (+886) 983960657 | ✉ slimon0216@gmail.com | 📱 slimon0216 | 🌐 po-yu-chen-999277227

Summary

A highly motivated graduate with a deep passion for programming and learning new technologies. Actively seeking a software engineering role to apply extensive computer science knowledge and problem-solving skills, to deliver valuable contributions.

Education

National Taiwan University

M.S. in Electrical Engineering

Taipei, Taiwan

Sep. 2022 - Jun. 2024 (Expected)

- GPA: 4.20/4.30
- Research Interests: High Performance Computing (HPC), Parallel Graph Algorithms on GPUs

National Taiwan University

B.B.A. in Information Management & International Business (Double Major)

Taipei, Taiwan

Sep. 2017 - Jun. 2022

- GPA: 3.82/4.30
- Relevant Coursework: Data Structures & Algorithms, Operating Systems, Computer Networks, Cloud Native Application Development, Machine Learning, Cyber Security, Computer Vision

Work Experience

MediaTek

Hsinchu, Taiwan

Software Engineer Intern | Tech Stack: Modern C++, Bazel, Protobuf, Perfetto

Jul. 2023 - Aug. 2023

- Enhanced the 5G modem profiler by introducing new visualization features, benefiting over 100 colleagues
- Developed a parser that serializes data into Google's Protocol Buffers format, seamlessly integrating with Google's Perfetto Trace Viewer UI, thereby enabling more effective analysis and debugging of performance issues

A&R Research Capital (Crypto Quantitative Fund)

Taipei, Taiwan

Software Engineer & Quantitative Trader | Tech Stack: Modern C++, CMake, GoogleTest, Docker

Jan. 2022 - Sep. 2022

- Led a 5-person infrastructure team to develop tools for crypto trading, utilizing a Test-Driven Development (TDD) approach
- Engineered a high-frequency trading strategy in C++, with robust error and signal handling mechanisms, yielding consistent profits
- Automated the build and testing processes by scripting, achieving a more efficient and streamlined development workflow
- Elevated test coverage from 40% to 90% by writing unit tests utilizing GoogleTest
- Refactored tightly-coupled codes and eliminated duplications to enhance the reusability and maintainability

Projects

Cloud Native Application - Online Food Ordering Platform

Taipei, Taiwan

Tech Stack: Node.js, TypeScript, Nginx, MongoDB, Redis, Docker, Azure

Oct. 2022 - Jan. 2023

- Developed a cloud-native application, following the 12-factor app methodology to ensure scalability, portability, and maintainability
- Implemented effective load balancing solutions within the backend system, significantly enhancing the platform's availability and scalability
- Successfully deployed the application on Azure cloud platform

Trademark Retrieval Mobile App

Taipei, Taiwan

Tech Stack: PyTorch, PostgreSQL, Deep Learning, Image Retrieval

Feb. 2021 - Jan. 2022

- Crawled the labels for trademark image and maintained a postgresQL database to store the data
- Fine-tuned a ResNet-based model on the trademark data to learn image representations through a multi-label classification task, enabling downstream image retrieval task

Secure P2P Micro-payment System

Taipei, Taiwan

Tech Stack: C++, Linux TCP Socket, Multithread Programming

Nov. 2021 - Jan. 2022

- Engineered a secure client-server system using C++ and Linux TCP/SSL sockets for encrypted micro-payment transactions
- Created a multithreaded server handling simultaneous client connections, enhancing the responsiveness and throughput
- Designed a thread-safe job queue using mutex locks and conditional variables to solve the producer-consumer problem

Skills

Programming C/C++, Modern C++, Python, Cuda, Node.js, TypeScript

Tools Git, Unix/Linux, Docker, Gdb, CMake, Bazel

CS Domain OS, Computer Network, ML/DL, Multithreading

Misc PyTorch, LaTeX, postgresQL MongoDB, Nginx, Azure

Language Mandarin (Native), English (Fluent)