

Introduction

I am an enthusiast of problem solving. Always seeks for best solution of problems encountered in life, work, or researches in spare time. Good at using debug tools and working with large codebase with mixture of several frameworks or tools to solve difficult problem.

Education

Bachelor of Computer Science and Information Engineering2020/09 – 2025/06

National Taiwan Normal University

Relavant Courses

- Computer Architecture (A-)
- Operating System (A+)
 - Focus on using elegant and less userspace impact way to achieve tasks given in homework.
- Advance Computer Graphics (A-)
 - Use rust wgpu crate to render 256 × 256 × 256 voxel within reasonable speed
 - Run on M2 Apple Silicon and MoltenVK
 - Leverage branchless programming to improve shader performance

Work Experience

Embedded Software Engineering Intern2025/05 – 2025/07

Apple#Objective-C #Python

- Develop internal flash tool in Objective C without prior knowledge.
- Develop internal web tool and migrate local secret to cloud infrastructure.

Software Engineer Intern2023/12 – 2025/05

Appier#Python #Kubernetes #Jenkins #Trino #GCP #Databricks

- Optimize Trino database by using bit vectorized query.
 - Refactor and optimize the SQL statement generator. Leads to the following impact:
 - Saves 56% of CPU time.
 - Saves 39% of wall time.
 - Understanding existing Python codebase that cooperate with of Spark (Scala), Airflow, Trino.
 - Migrate complex old PR to newer version of codebase.

Software Engineer Intern2023/07 – 2023/11

樂居 Leju#PHP #Laravel #MySQL #AWS

- Speedup their system by 200% in the development environment.
- Introduce Datadog as logging solution to replace MySQL based logging system. Significantly speed up bug fix workflow and improves development experience.

Open Source Contributions & Side Projects

envbuilder: <https://github.com/coder/envbuilder>2024/03

Devcontainer support for Cloud IDE in Kubernetes#Golang #Kubernetes

- Add registry cache mirror control environment variable.
- Avoids DockerHub rate limits.

HIME: <https://github.com/hime-ime/hime>2021/03

Open source input method engine#C #Dynamic Linking #GDB #QT Debug

- Discover a case where the IME cannot work.
- Use gdb and QT debug environment variable to find root cause.
- Fix by linking missing library.

rtl8852au-openwrt: <https://github.com/jw910731/rtl8852au-openwrt>2025/05

Port realtek WiFi adapter out-of-kernel driver to OpenWRT#C #Backports #OpenWRT

- Patch the driver to fix compile error caused by Linux backports
- Integrate with build system of OpenWRT

MemLoadProgram: <https://github.com/jw910731/MemLoadProgram>2021/07

Run program without load it to disk#C #Linux memfd

- 22 Stars on Github
- Leverages Linux memfd feature

Skills

Programming	C/C++, Java, Python, Golang, JavaScript, PHP, Rust
Infrastructure & DevOps	GitHub Action, Jenkins, Docker, Nginx, Kubernetes
Communication	Chinese (native), English
Other	Linux System , Linux Admin, MySQL, LaTeX, Typst