Peng-Jui (James) Wang

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Education

University of California, San Diego — *La Jolla, CA*

Master of Science in Computer Science and Engineering — *Sep. 2024 - Jun. 2026*

- Relevant Coursework: Operating Systems, Distributed Computing and Systems, Principles of Software Engineering

National Yang Ming Chiao Tung University (National Chiao Tung University) — *Hsinchu, Taiwan*

Bachelor of Science in Computer Science — *Sep. 2019 - Jun. 2023*

- GPA: Overall **4.1/4.3**, Major **4.16/4.3**
- Academic Achievement Award (Top 5% of the class)

Skills

Programming Languages	Python, C, C++, HTML, CSS, JavaScript, TypeScript, Kotlin
Backend Frameworks	FastAPI, Flask, Node.js, Express.js, GraphQL
Frontend Frameworks	React.js, Next.js, Tailwind CSS, Material UI
Databases	MySQL, PostgreSQL, MongoDB, Firebase, Redis
DevOps	Docker, Kubernetes, Jenkins, Drone CI, GitHub Action, Ansible
Tools & Services	Git, Nginx, Elastic Stack, Google Cloud Platform

Experience

Software Engineer Intern, Appier Inc. — *Taipei, Taiwan*

Python | FastAPI | Flask | TypeScript | React.js | GraphQL | Docker | Jenkins | Elastic Stack | GCP | AWS — *Jul. 2023 - Jun. 2024*

- Built a scalable and fault-tolerant notification microservice handling 10000+ messages daily based on the Pub/Sub model
- Developed a dashboard to replace JIRA for over 500 employees to track and manage the company's advertising business
- Optimized frontend performance and responsiveness by implementing virtualized rendering for large-scale tabular data
- Boosted overall system observability by integrating Elastic APM and OpenTelemetry for end-to-end performance monitoring
- Introduced Clean Architecture and Domain-Driven Design to enhance the structure and maintainability of various projects

Backend Engineer Intern, Shopee Pte. Ltd. — *Taipei, Taiwan*

Python | FastAPI | Docker | MySQL | Elastic Stack — *Oct. 2022 - Mar. 2023*

- Deployed a logging system with Elastic stack to streamline log analysis across multiple servers, cutting manual effort by 95%
- Refactored the backend codebase with Object Relational Mapping (ORM), reducing the use of raw SQL queries by 70%
- Implemented 3 new features for the internal portal, benefiting over 100 non-technical staff in the company

Software Engineer Intern, Kapito Inc. — *Hsinchu, Taiwan*

Python | FastAPI | Docker | Kubernetes | PostgreSQL | Drone CI | Ansible — *Jul. 2022 - Aug. 2022*

- Applied role-based access control to the current system, reducing 50% of API endpoints in the backend
- Constructed automated CI/CD pipelines using Ansible and Drone CI, speeding up application setup 3x times faster
- Established a Kubernetes cluster to orchestrate the deployment and management of NVIDIA Triton Inference Server

Research Assistant, Mobile and Ubiquitous Interaction Lab — *Hsinchu, Taiwan*

Supervisor: Prof. Yung-Ju Chang — *Jul. 2021 - Sep. 2023*

- Conducted research in Human-Computer Interaction (HCI) with a focus on mobile systems and mobile notification
- Published 2 works on AI-enhanced notification management to optimize mobile interactions and minimize disruptions
- Developed intelligent notification systems that improve smartphone users' experience of notifications

Projects

NotiSummary

Android | Kotlin | Jetpack Compose | Material Design 3 | Room Database | Firebase

- Crafted an AI-powered application that utilizes large language models to present smartphone notifications in a summary form
- Achieved user engagement with 150+ downloads on the Google Play Store within a few months after release

LinkLite

TypeScript | Node.js | Express.js | MongoDB | Redis | Docker | Nginx | Github Action | Jest

- Developed RESTful APIs that offer URL shortening services, integrated with CI/CD pipelines for automated testing and deployment
- Implemented a caching mechanism using Redis to expedite URL lookups and reduce database overhead

Parallel File Finder

C | pthreads

- Developed a simple and fast alternative to GNU *find*, enabling file searches based on specified criteria in a directory hierarchy
- Boosted search speed by 200% through parallel directory traversal and pattern matching with thread-safe queues