Peng-Jui (James) Wang

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Education

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

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

- Coursework: Principles of Database Systems, Parallel Computing, Recommender Systems and Web Mining

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)
- Coursework: Data Structure, Algorithm, Object-Oriented Programming, Operating System, Distributed System, Cloud Computing

Skills

Programming Languages	Python, C, C++, Kotlin, JavaScript, TypeScript, HTML, CSS, Shell Script
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	Linux/Unix, Git, Nginx, Elastic Stack, Google Cloud Platform, Amazon Web Services

Work Experience

Software Engineer Intern, Appier *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 by utilizing virtualized rendering for large-scale tabular data, decreasing load times by 50%
- Boosted overall system observability by integrating Elastic APM and OpenTelemetry for end-to-end performance monitoring
- Created Jenkins pipelines for developers to set up dev environments remotely via APIs, reducing human intervention by 90%

Backend Engineer Intern, Shopee *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 *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

Kotlin | Android SDK | Android Jetpack | Jetpack Compose | Material Design 3 | Room | 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