

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 Computation, 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 Structures, Algorithms, Object-Oriented Programming, Operating Systems, Networks, 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 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 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
- 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