# 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*
- 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

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|---|---|
| **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 |

## 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 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