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: Database Systems, Natural Language Processing, 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)
- Relevant Coursework: Data Structures, Algorithms, Object-Oriented Programming, Operating Systems, Distributed Systems, Cloud Computing, Parallel Computing, Computer Networking, Computer Security, Computer System Administration

Skills

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

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 3 works on AI-enhanced notification management to optimize mobile interactions and minimize disruptions
- Led a team of 3 people in developing intelligent notification systems to enhance smartphone users' notification experience

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 200+ 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