Nai-En Kuo

n1kuo@ucsd.edu | (909) 616-9505 | https://naienkuo.github.io/

Education

University of California, San Diego, Master of Science in Computer Science	Sept 2023 – Mar 2025
National Chiao Tung University, Bachelor of Science in Computer Science	Sept 2017 – Jan 2021

Experience

Software Engineer Intern, MediaTek – San Diego, CA   June 2024 – Dec 2024
- Built backend services for internal web applications, streamlining the tracking of customer report resolutions.
- Developed 40+ features and APIs using Python Flask and MongoDB, enhancing efficiency and scalability.
- Optimized database structures and queries, reducing response times by 67%.
- Collaborated with cross-functional teams to ensure reliable deployments and efficient workflows.

Software Engineer Intern, TSMC – Hsinchu, Taiwan   July 2022 - Sept 2022
- Migrated system to Kubernetes-based environment, leveraging CI/CD pipelines for seamless deployments.
- Developed a Java Spring Boot service to optimize reporting processes, doubling data processing speeds.

Teaching Assistance, National Yang Ming Chiao Tung University – Hsinchu, Taiwan   Oct 2021 - Jun 2022
- Assisted students in understanding network programming concepts and completing assignments.
- Supported the professor by preparing teaching materials on ML algorithms for networking applications.

Software Engineer Contractor, DBS Bank – Taipei, Taiwan   July 2020 - Jan 2021
- Developed a Line chatbot with automatic phone dialing via Twilio API, improving customer support efficiency.
- Automated data collection for recruitment using Python (Selenium, Pandas), accelerating hiring processes.

Publication

Using programmable p4 switches to reduce communication costs of parallel and distributed simulation   Dec 2022

Published in IEEE Globecom (DOI:10.1109/GLOBECOM48099.2022.10001195)

Honors

AIS3 EOF CTF 2021 Finalist (Rank: 10) – Taipei, Taiwan   Feb 2021
- Solved security challenges in Cryptography, Reverse Engineering, Web and Binary Exploitation (Pwn).

2020 ICPC Asia Taipei-Hsinchu Site Programming Contest Bronze Medalist   Nov 2020
- ICPC official certificate: **C300DHLH34B2**

2020 Mei-Chu Hackthon 3rd Place – Hsinchu, Taiwan   Oct 2020
- Developed an application allowing Line users to access and share tweets seamlessly via the Twitter API.
- Led a team of 4 to develop this public app. Github repo: **https://github.com/taipeiyuka/line-liff-4FUN**

Project

Multifunctional Aerial Gazer   Github repo
- Designed a face-tracking drone that autonomously tracks the owner's face for filming or photography.
- Leveraged OpenCV and TensorFlow for real-time face detection and head pose estimation, and utilized MediaPipe for hand gesture recognition to enable intuitive drone control.

Skills

Languages: Python, C++, Java, Golang, SQL, JavaScript, Haskell, CUDA, PHP

Technologies: Flask, Spring Boot, Kubernetes, MongoDB, PostgreSQL, TensorFlow, Selenium, CI/CD, Git, Linux