

# Kuan-Cheng (James) Ku

📍 Taipei, Taiwan   ✉️ ruby0322@ntu.im   ☎️ 0983-588-092   🌐 Website   in James Ku   📧 ruby0322

## Education

- National Taiwan University** *Bachelor in Information Management* 2021 – 2025
- GPA: 3.96, CS-related Elective GPA: 4.11; Key Courses: Web Programming, Applied Deep Learning, Introduction to Information Retrieval and Text Mining, Cloud Native Application Development, Systems Analysis and Design
  - Teaching Assistants (5 courses): Web Programming, Data Structures & Advanced Programming, Systems Analysis & Design, Calculus, Marketing Management, assisting 500+ students in total.

## Experience

- Research Development Intern, Microsoft** *TSMC OnePlatform Team, ISD* Apr 2025 – Present
- Led end-to-end testing initiatives by creating comprehensive test plans, conducting rigorous testing, and organizing client communication sessions to facilitate iterative feedback cycles between development teams from ADV, ASUS and MS to ensure alignment with project objectives.
- Dev Lead, NTU Art Festival 2024** *Riddle City Treasure Hunt Team* 🌐 Website Jan 2024 – Jun 2024
- Architected and led the development of an online city treasure hunt gaming website with Next.js integrating physical riddles on campus, creating immersive experience that gained 300+ active users during the event lasting 1 week.

## Achievements

- TSMC IT CareerHack 2024: 2nd Place** 🏆 📄 deVopSCode Feb 2025
- Developed an AI maintenance toolkit, including web and VSCode interfaces, using Vertex AI, FastAPI, LangChain, and deployed on GCE and GKE within two days. Selected as one of 24 finalists from 168 teams and achieved second place.
- Taiwan Digital Innovation Awards 2025: Honorable Mention** 🏆 📄 RenderResume On going
- Developed an AI resume editor featuring evaluation, STAR restructuring, and intelligent Q&A optimization using OpenAI API, Next.js, and Supabase. Selected as one of 14 finalists from 100+ teams and received Honorable Mention (Top 7).

## Projects

- One-Click Outfit** 🏆 (Bachelor Project) 📄 rmmfj/outfit-recommendation-app Jan 2024 – Jan 2025
- Architected and led fullstack development of an AI-driven platform that provides personalized fashion recommendations with Next.js and Flask, achieving a successful product launch with 300+ users within 2 weeks.
  - Deployed a scalable system architecture with Docker on a VPS, and reduced processing time by 70% by migrating no-sql database to PostgreSQL and installing vector indexing.
- NCHU Tutoring Program Dashboard (Freelance Project)** Apr 2025 - Sep 2025
- Architected and developed, as a solo freelancer, a full-stack student management platform using Next.js, PostgreSQL, and Supabase to serve 300+ MAU, integrating task management, dynamic form builders, real-time analytics dashboard, and email notification system, reducing administrative overhead.
  - Designed a comprehensive RBAC security architecture, maintaining complete data isolation and compliance.
- StreamBench Agent: Continuous Improvement of LLM (Course Project)** Oct 2024 – Dec 2024
- Implemented continuous improvement mechanisms following StreamBench methodology (NeurIPS 2024), engineering systematic prompt optimization pipeline for medical diagnosis that improved accuracy from 50.17% to **73.64%** through clinical scenario framing, structured reasoning templates, and negative example learning strategies.

## Leadership and Activities

- Lecturer, Taipei Municipal Zhongshan Girls High School** *Information Club* Jan 2025 – Present
- Lecturer, Taipei Municipal Datong High School** *Information Club* Jun 2023 – Present
- Lecturer, Sprout from NTU CSIE** 🏆 *C/C++ Programming Class* Dec 2021 – Jun 2024
- Director, NTU Information Management Student Association** *IT Department* Jun 2022 – Jan 2024
- Co-founder, NTUIM Competitive Programming Team** Jan 2022 – Jun 2023
- Chief Organizer, 2023 NTUIM Programming Contest: PDAO** Dec 2022 – May 2023
- Deputy Organizer, 2024 NTUIM Camp: Information Fog** Jun 2023 – Jan 2024

## Technologies and Languages

- Languages:** Python, C/C++, HTML5, CSS3, JavaScript, TypeScript, SQL **Chinese:** Native
- Frameworks:** Express, React, Next, Tailwind, LangChain, Pytorch, Flask, FastAPI **English:** Fluent
- Tools:** Git/GitHub, Docker, GCP (GCE, GKE, Vertex AI), Vercel, Azure DevOps TOEIC 950