

Kuan-Cheng (James) Ku

📍 Taipei, Taiwan ✉️ ruby0322@ntu.im ☎️ 0983-588-092 💻 rubytech.dev in James Ku 📧 ruby0322

Education

National Taiwan University *Master in Information Management* Feb 2026 – Present
National Taiwan University *Bachelor in Information Management (3.88 GPA)* Sep 2021 – June 2025

- Key courses include Web Programming, Deep Learning, Information Retrieval & Text Mining, Cloud Native Application.
- Organized and led multiple large-scale events with 100+ participants, managing cash flows totaling nearly 1M NTD.
- Taught 1000+ students across NTU, high schools and NPO in programming, fullstack, ML, systems design, calculus, etc.

Work Experience

Software Engineering Intern, CAMP Investment Technologies *Jakarta, Indonesia* Jun 2026 - Present

- Owned end-to-end delivery of TransX402 as primary engineer, building the first hosted x402 facilitator for IDRX (Indonesia's IDR-pegged stablecoin) where Coinbase's official stack only supports USDC.
- Designed browser and agent payment flows for IDRX, which lacks native EIP-2612 support, by extending x402 with offline-signed `approve` relay and gas-sponsored settlement, achieving gasless approval UX without on-chain `permit()`.
- Led a phased re-architecture from bespoke, non-x402 payment infra to Coinbase `@x402/*` standard libraries, and extracted IDRX adapter logic into published npm packages (`@transx402/client`, `@transx402/server`), improving maintainability.

Research Assistant, National Taiwan University Hospital 📄 [Journal Article](#) 📁 [GitHub](#) Jan 2026 – Present

- Led end-to-end ML and software development for a peritoneal dialysis exit-site infection screening system under Taiwan patent framework (M678111), deployed to support 400+ PD patients at NTUH.
- Trained a 97% accuracy `MobileNetV3` infection risk classifier with transfer learning and class reweighting, and added a CLIP + linear-probe pre-screen to reject non-compliant images before inference.
- Built a LIFF-based patient app for guided medical image capture and automated screening, plus a nursing dashboard for reviewing model predictions, tracking suspected cases, and supporting follow-up decisions.
- Migrated production deployment to a self-hosted Kubernetes platform with Argo CD GitOps (dev/prod namespaces), GitHub Actions CI/CD to GHCR, cert-manager TLS, and zero-downtime rolling releases with PreSync DB migrations.

Research Development Intern, Microsoft Taiwan *TSMC OnePlatform Team, ISD* Apr 2025 – Jan 2026

- Built an agentic workflow that turned MS Teams Facilitator notes and mockup images into structured Azure DevOps test cases, and converted ADO results into reusable user-manual content.
- Led QA, designing 400+ test cases, identifying 150+ bugs, driving cross-vendor / QA-client validation to speed resolution.
- Authored a 300+ page LaTeX user manual and delivered training sessions that supported successful project closure.

Achievements

Honorable Mention, IEC 2025: RenderResume ▶️ [Demo](#) 🏆 [Certificate](#) Jun 2025 - Oct 2025

- Developed an AI resume editor featuring guided STAR refactoring using Next.js, LangChain, LangSmith and Supabase.

2nd Place, TSMC IT CareerHack 2024: deVopSCode 📁 [GitHub](#) 🏆 [Certificate](#) Feb 2025

- Shipped a full-stack AI DevOps solution using Vertex AI, FastAPI, LangChain and LangGraph on GCP within 2 days.

Projects

One-Click Outfit: AI Fashion Platform ▶️ [Demo](#) 📄 [Slides](#) Jan 2024 – Jan 2025

- Built and launched an AI outfit recommendation platform with OpenAI vision + pgvector semantic retrieval and structured output validation for reliable image-based styling using Next.js, TypeScript, Supabase.

Customized IT Solution for ShiJiou Cafe 📄 [Slides](#) Mar 2023 – May 2023

- Interviewed a Banqiao cafe, then shipped a LINE chatbot queue + real-time ops dashboard to cut wait times and replace manual queueing using React, Express, Firebase, LINE Messaging API.

Skills

Languages: C/C++, Python, JS/TS, HTML5, CSS3, SQL, LaTeX / Chinese (Native), English (Fluent, TOEIC 950)
Fullstack: React, Next, Vue, Tailwind / Express, Flask, FastAPI / PostgreSQL, Supabase, MongoDB, Firebase
DS/ML/LLM: Numpy, Pandas / XGBoost, Pytorch (CNN, RNN, Seq2Seq, Transformers) / LangChain, LangSmith
DevOps: Playwright, Jest / Docker, Docker Compose / Azure DevOps, GitHub Actions / Cloudflare, Vercel, Railway, GCP
AI Tools: Cursor (1.6B+ tokens used in 2025 📄) & Claude Code