

劉昱崙 LI-TSE LIU (NILS)

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WORK EXPERIENCE

Cathay United Bank (CUB, One of the biggest bank in Taiwan)

Taipei, Taiwan

Data Scientist / GenAI Product Manager / GenAI Solution Architect

Jan. 2024 - Present

- Lead developer / architect for CUB's first production GenAI application CathayGPT (國泰智多星) on GCP (serverless), transitioning from prototype to production-grade workflows and driving internal ROI via knowledge & task assistance.
- Architected and shipped a scalable serverless GenAI stack on GCP (Cloud Run, Cloud SQL, Cloud Storage, Vertex AI); implemented enterprise-grade controls across identity, access, auditing, monitoring, and failure handling to meet banking security/compliance expectations.
- Developed agentic workflows (multi-agent + tool-calling) and MCP-style tool servers; applied OAuth-based authentication patterns for tool access and standardized tool contracts for reuse.
- Founded and built the Holding company's first overseas-dedicated AI Agent platform, designed to scale across scenarios with a modular multi-agent architecture (agents/tools/memory/evaluation) and production operational standards.
- Followed Software 3.0 / generalization-first approach: prioritized reusable capabilities, standardized interfaces, and measurable evaluation loops over one-off prompt customization for long-term scalability.
- Innovation & thought leadership: 1st place in CUB 2024 innovation competition; multiple patents granted; delivered technical talks/workshops (iThome Hello World).

Synpulse (a global management consulting company offering financial services)

Taipei, Taiwan

Banking Technology Consultant, focusing on AI solution architecture

Feb. 2023 - Jan. 2024

- Ran technical discovery and enablement for a bank data governance program; translated business goals into implementable AI/analytics patterns, governance controls, and execution roadmaps.
- Built and integrated a GenAI module ("Narrator") that transforms risk analytics outputs into natural language; partnered with client engineering teams to deliver a deployable PoC and adoption-ready demo.

Development Bank of Singapore (DBS)

Taipei, Taiwan

Management Associate (MA Program) -> Devops Senior Associate

Aug. 2019 - May. 2022

- Shipped production-grade automation/data solutions using Python (Linux + MySQL + SHA-256) enabling remote operations during COVID; scaled as a reusable template across 70+ recurring reporting workflows.
- Owned delivery for a call center platform application: requirements translation, code review coordination, SIT execution, and pre-launch issue resolution; improved stability and compliance vs. legacy platform.
- Led ML enablement program (AWS DeepRacer) for 200 staff; delivered Python/RL training and improved applied ML literacy across engineering and business teams.

EDUCATION

National Taiwan University

Master of Engineering in Computer Science (program discontinued)

Taipei, Taiwan

Jun. 2021 - Sep. 2024

QUANTIC Business School

Master of Business Administration (online MBA Program)

Washington DC, the USA

Mar. 2019 - Mar. 2020

Technical University Chemnitz

Master of Science in Chemistry

Chemnitz, Germany

Oct. 2012 - Dec. 2015

National Taiwan University

Bachelor of Science in Chemistry

Taipei, Taiwan

Sep. 2006 - Aug. 2010

PATENTS (Granted)

- M676680 — 知識圖譜建構系統 (Knowledge Graph Construction System) — Public: 2025/11/01 | App. No.: 114207958 | Filed: 2025/07/30
- M674713 — 資料查詢系統 (Data Query System) — Public: 2025/09/11 | App. No.: 114205073 | Filed: 2025/05/20
- M671449 — 客製化生成式人工智慧系統 (Customized Generative AI System) — Public: 2025/06/11 | App. No.: 114202371 | Filed: 2025/03/10
- M671223 — 資訊查詢系統 (Information Query System) — Public: 2025/06/01 | App. No.: 114203458 | Filed: 2025/04/08
- M671161 — 智慧優化系統 (Smart Optimization System) — Public: 2025/06/01 | App. No.: 114202826 | Filed: 2025/03/21
- M670472 — 金融投資建議生成系統 (Financial Investment Advice Generation System) — Public: 2025/05/11 | App. No.: 114202269 | Filed: 2025/03/06

OTHERS

Competition: 1st place of CUB 2024 Innovation Competition Introduced GenAI tech into a test data system

Certificates: PMP (Project Management Professional) / TestDaf (German language certificate)

Publication: 6 GenAI patents

Interest: Founded a German & an English learning club w/ 40+ members actively attending, running for 10 years until today;

Languages: Native Chinese speaker, excellent in English and German, basic communication ability in Japanese

Program Languages: Python, SQL, VBA, C++ (basic)