

MU-EN CHIU (邱沐恩)

🏛 National Taiwan University — Double Major in Business Administration & Computer Science

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Executive Summary

Double-major student in Computer Science and Business Administration at NTU, focused on building AI-driven systems for operational decision-making. Experienced in RAG, LLM agents, machine-learning pipelines, simulation, and workflow automation, with strong end-to-end thinking from business requirements to technical implementation.

Academic Performance

National Taiwan University (NTU), Taipei, Taiwan *Aug 2023 - Jun 2027 (Expected)*

Double Major in Business Administration (Technology Management) & Computer Science

- Dean's List Award (Top 5%) —2023 Fall & 2024 Spring
- Presidential Award (Top 2%) —2024 (GPA: 4.21/4.3)
- **Management:** Operations Management (A+), Database Management (A+), Supply Chain Management (A)
- **Computer Science:** Data Structures & Algorithms (A), Machine Learning (A-), System Programming (A-)
- **Research Assistant:** Collected large-scale sales data for marketing research by developing web crawlers

Selected Technical Projects

I.R.I.S.: IT Incident Assistant

*TSMC IT CareerHack **Champion**, Feb 2026*

- **Multi-Agent System:** Architected an autonomous multi-agent system powered by n8n, Google Vertex AI, and context-aware RAG (integrated with PostgreSQL) to orchestrate complex root cause analysis workflows.
- **Hallucination Mitigation:** Engineered a self-correcting verification loop where a dedicated Verifier Agent cross-references AI solutions against raw logs and private codebases to ensure technical accuracy.
- **Business Impact:** Achieved a projected **40% reduction in MTTR** by fully automating post-incident documentation and establishing a knowledge flywheel to transform resolved cases into permanent assets.

Wafer Copilot: GenAI Smart Manufacturing Assistant

*Micron MIMORY Award **Finalist**, Jan–May 2026*

- **Hybrid AI Framework:** Combined ResNet-18 wafer defect classification (**99.2% accuracy**), Grad-CAM explainability, and a RAG-powered LLM engine to connect visual patterns with simulated FDC machine logs.
- **Validation Layer:** Designed a rule-based digital twin surrogate to evaluate AI-recommended parameter adjustments before execution, supporting safer human-in-the-loop manufacturing decisions.
- **Business Impact:** Transformed static defect detection into traceable, SOP-grounded diagnostics, reducing hallucination risk and addressing the decision gap between anomaly identification and corrective action.

Bus Bunching RL Dispatch Optimization

*DAS2026 **Excellent Paper Award**, Apr–Jun 2026*

- **Data-Driven Simulation:** Integrated TDX, Taipei Bus GPS, and CODIS weather data to evaluate Dunhua Main Line dispatch strategies.
- **Reinforcement Learning Framework:** Modeled departure control as a sequential decision problem and trained a PyTorch DDQN agent to balance bunching risk, passenger waiting time, and operating cost.
- **Operational Impact:** Reduced bunching volume by **22.9%** and bunching occurrence time by **16.2%** versus a fixed-headway baseline, demonstrating the potential of adaptive dispatching.

FashionDistill: Generative AI for Market-Aware Fashion Design

NTU FinTech Project, Mar–Jun 2025

- **Multi-Stage AI Framework:** Integrated LLaVA and Vicuña LLMs to predict trend-aware prompts derived from 106 weeks of H&M transaction data.

- **Model Optimization:** Fine-tuned a Latent Diffusion Model using Direct Preference Optimization to align generated designs with real-world sales performance.
- **Business Value:** Improved prediction accuracy by **4–7%** over the baseline, enabling precise demand forecasting and inventory planning for market responsiveness.

Leadership & Operational Experience

Operation Optimization Project —“DeJeng”Beverage Shop *NTU Operations Mgmt, Jun 2025*

- **Process Improvement:** Led a **6-member team** to analyze operational bottlenecks and implement an evidence-based improvement plan for a beverage chain.
- **Cross-Functional Communication:** Coordinated cross-functional discussions, ensuring progress alignment, and achieved a **70% reduction in customer waiting time without extra cost**.

Global Exchange & Collaboration *Singapore & China, Jun-Jul 2025 & Aug 2024*

- **GEM Trailblazer (Singapore):** Collaborated with international students on data analytics projects in an English-speaking environment.
- **NTU-PKU Elite Camp (China):** Engaged in interdisciplinary case studies with Peking University students, enhancing strategic problem-solving skills in dynamic settings.

Volunteer & Ministry Leadership *International & Local, 2022 –Present*

- **Worship Team:** Serve as pianist and sound control 2-3 times monthly, ensuring cohesive performance flow and atmosphere for services.
- **Overseas Service (Jordan/Malaysia):** Participated in refugee education and community engagement programs for 200+ children; developed adaptability and empathy by working with volunteers from 10+ nations.

Skills

Programming	Python, C/C++, SQL, R, LaTeX
AI & Cloud:	Google Vertex AI, PyTorch, n8n, RAG, LLM Agents, Grad-CAM, DDQN
DevOps & Tools:	Git/GitHub, Docker, GCP, Linux
Analytical:	Process Optimization, Statistical Analysis, Data Visualization, Business Forecasting, Simulation
Languages:	Mandarin (Native), English (TOEIC 870 –Professional Working Proficiency)
Certifications:	Google Data Analytics (Coursera)