Ting-Yen Chang

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Education

National Yang Ming Chiao Tung University (NYCU) Sept. 2024 – Aug. 2026
M.S. in Institute of Intelligent Systems *Tainan, Taiwan*

National Tsing Hua University (NTHU) Sept. 2020 – Jun. 2024
B.S. in Interdisciplinary Program of Education *Hsinchu, Taiwan*

- Specialties: Education for Sustainable Development, Computer Science
- Honors: Academic Excellence Award, top 5% (Fall 2021); NSTC Undergraduate Research Grant (2023–2024)

Relevant Coursework

- Deep Learning (A+)
- Deep Generative Models (A+)
- Applying LLMs in Cybersecurity Systems (A+)
- Special Topics and Labs on Intelligent Software (A+)
- Data Science Software and Computation Experiments (A+)

Research

DeepCAT Lab, NYCU Institute of Intelligent Systems Sept. 2024 – Aug. 2026
Advisor: Dr. Tzer-Jen Wei *Tainan, Taiwan*

- **M.S. Thesis, Semantic Disruption Attacks on LLMs via Invisible Character Injection:** invisible characters make humans and LLMs read different words; up to 89.1% misread.
- **Industry collaboration with ITRI ICL:** integrated existing cache-based acceleration methods such as TeaCache into a Stable Video Diffusion pipeline, and demonstrated the measured speedup to the partner team in ComfyUI.

Work Experience

Industrial Technology Research Institute (ITRI) July 2025 – Dec. 2025
Digital Twin Engineer Intern, Electronic & Optoelectronic System Research Labs (EOSL) *Hsinchu, Taiwan*

- Evaluated Automatic Emergency Braking (AEB) behavior in the CARLA simulator: ran existing modules, tuned parameters, and reported scenario test results.
- Contributed to braking-strategy discussions with the team.

SUNNET Technology Taiwan July 2024 – August 2024
Development Engineer Intern *Taipei, Taiwan*

- Contributed to khiKUN, a RAG-based HR onboarding chatbot later deployed as a company product: iterated on system prompts and evaluated response quality across test scenarios.

Projects

LLM-Based Phishing Email Detection System | *QLoRA, Qwen3, RAG, Streamlit* | GitHub 2026

- Fine-tuned Qwen3-14B with QLoRA on 4,000 emails, lifting accuracy from 50% to 88.75% (F1 0.896).
- Built a RAG pipeline over MITRE ATT&CK and APWG threat intel to attach evidence to each verdict.
- Quantized the model to GGUF for local Ollama inference and shipped a Streamlit demo.

CloudMosa @ MeiChu Hackathon - CoinMind | *LangGraph, Gemini, AI Agent* 2025

- Built the AI layer of a team hackathon project: a financial assistant agent using LangGraph and Gemini.
- Designed the agent workflows turning user data into context-aware, LLM-generated advice.

Technical Skills

Languages: Python, C/C++
Technologies/Frameworks: PyTorch, Hugging Face Transformers, scikit-learn, LangChain/LangGraph, Streamlit
Tools: Docker, Git/GitHub, Ollama, ComfyUI, ChromaDB, FAISS