KAI-HUNG WANG

r14631009@ntu.edu.tw | +886 965602158

Profile

First-year master's student in Biomechatronics Engineering at National Taiwan University with hands-on experience in **AI-driven applications** and **data processing**. During my previous internship, I developed an agent-based RAG system which included a hybrid-search pipeline. Motivated to apply my AI/ML and data engineering expertise, I look forward to joining your team in exploring innovative solution at the frontier of AI development.

Education

National Taiwan University

- M.S. in Biomechatronics Engineering (*Sep 2025 – Present)*

- **B.S.** in Biomechatronics Engineering (*Sep 2021 – Jun 2025)*

Relevant Coursework:

- Artificial Intelligence: Applied Deep Learning(A+), Generative AI(A+), AI in Healthcare(A+)

- **Data Analysis:** Probability and Statistics, Data Structures and Algorithms, Image Processing

Technical Skills

Programming: Python, C++, Java, Bash shell script

AI Frameworks: PyTorch, AutoGen, OpenCV, Hugging Face

Tools: Docker, Git, Conda, FastAPI, Unicorn, MilvusDB

Experience

Quanta Computer Inc. — *AI Model Technical Research Intern* *Jul. 2025 – Dec. 2025*

- Developed an **agent-based RAG system** with multi-agent and function calling capabilities to streamline access to **600+ internal technical specifications** for engineering teams, achieving 95% response accuracy.
- Engineered **robust system prompts** to strictly govern agent behavior, implementing **output constraints** (grounding) and **dynamic tool routing** to ensure AI actions aligned with specific user intents and business rules.
- Designed and deployed an on-premise two-stage hybrid search pipline and achieved nearly cloud-comparable accuracy with **~1-second** query latency.

NTU C4Lab - Machine Learning and Bioinformatics Lab

-Master's Student & Server Team Member *Jul. 2025 - present*

-Undergraduate Student Researcher & Server Team Member *Jun. 2023 - Jun. 2025*

- Advisor: Prof. Chien-Yu Chen
- College Student Research Scholarship (國科會大專生研究計畫) *Jul. 2024 - May 2025*
  - Processed large-scale genomic datasets (9,000+ ClinVar variants; ~48,000 WES variants), applying automated data collection pipelines using Python.
  - Applied ensemble ML models to a dataset of over 9,200 records and used statistical methods to validate a 4x greater accuracy in distinguishing high-value data points.

Teaching Assistant:

- Introduction to Artificial Intelligence *Sep. 2024 - Dec. 2024; Sep. 2025 - present*
- Practical Data Structures and Algorithms *Feb. 2025 - Jun. 2025*