Hsin-Ling (Justin) Hsu

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Education

National Chengchi University (NCCU) Expected Graduation: Jun. 2027
Bachelor's in Management Information Systems (MIS) *Taipei, Taiwan*

- Previously enrolled in Mathematical Sciences (Sept. 2023 – Aug. 2024)
- Google Developer Group (GDG) - NCCU, Lecturer and Core Member

Work Experience

AI Intern Sept. 2024 – Present
GoFreight *Taipei, Taiwan*

- Developed AI-powered dynamic web parsing solutions to mitigate crawler disruptions caused by web changes, significantly reducing maintenance costs.
- Focused on CV (computer vision) and NLP recognition for logistics documents (e.g., Master Bill of Lading, Invoice), enhancing the accuracy and efficiency of automated document processing.
- Technologies utilized: Python, LangFuse, Claude Computer use, AWS S3 & Textract.

Research Assistant May 2024 – Present
Institute of Information Science, Academia Sinica *Taipei, Taiwan*

- Advisor: Prof. Ti-Rong Wu, Reinforcement Learning and Games Lab.
- Participated in a research project on General computer game solving based on Proof Cost Network (PCN).
- Responsible for designing and developing both frontend and backend components of computer games using WGo.js, C/C++.
- Designed a high-performance database for managing large-scale game records and AI-analyzed board states, optimizing system architecture to ensure stability, scalability, and efficient data access, supporting a high-performance gaming environment.

Part-time Engineer Jul. 2023 – Sept. 2024
ChainSea Information Group *Taipei, Taiwan*

- AI Engineer | Core R&D Contributor to Open-Source LLM and Whisper Projects at ChainSea, specializing in real-time transcription, inference acceleration, dataset generation and augmentation (e.g., Taipower project under Selected Projects), and model training.
- Designed, developed, and optimized RAG architectures to improve knowledge base retrieval accuracy.
- Conducted research and development in cutting-edge AI technologies, including the design and implementation of LLM Agent architectures for marketing workflows and a generic framework for topic management.
- Technologies utilized: Python, SentenceTransformer, TensorFlow, PyTorch.

Awards & Honors

2nd Place (~0.8%) in HOTAI MaaS Hackathon 2024
AI Intelligent Travel Checkup. News Article

- A nationwide competition open to all ages, hosted by two giant corporations, Hotai Motor and Microsoft.
- By presenting an innovative forum and AI algorithm for intelligent itinerary check-ups and recommendations, we won second place nationwide and received a prize of 250,000.
- I was responsible for system architecture design, AI & full-stack development, as well as delivering the technical presentation and demo.

2nd Place in AI Interdisciplinary Sustainability Innovation Competition 2024
Campus AI assistant AllPass Project Lead: AI & backend development. News Article | Certificate

Selected Research & Projects

Exploration of Optimal Weight Configuration Between Keyword and Vector Search in RAG 2024 – Present
Advisor: Prof. Jengnan Tzeng

- Continue advancing the research with the advisor, with plans to write this research into a paper and submit it to a journal.

NCCUPass APP 2024 – Present
Role: Head of AI

- Led the AI team in the R&D of the campus AI assistant AllPass. As of September 2024, over 2,000 students at National Chengchi University have registered and used the platform, and the project has received multiple accolades in startup competitions.

High-Accuracy RAG Retriever Template 2024
AI CUP 2024 E.SUN Artificial Intelligence Open Challenge

- Won the 'Top Accuracy Nationwide Award' in the AI CUP 2024 E.SUN Artificial Intelligence Open Challenge - Application of RAG and LLM in Financial Q&A, ranking in the top 8% nationwide for overall accuracy.

Taiwan Power Intelligent Robot Optimization Project 2023
ChainSea Information Group

- Participated in and completed the optimization of training data for Taiwan Power's official website intelligent AI customer service system "Dianbao" during my tenure at ChainSea.