

# Hsin-Ling (Justin) Hsu

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## Education

### National Chengchi University (NCCU)

Bachelor's in Management Information Systems (MIS)

Expected Graduation: Jun. 2027

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 in HOTAI MaaS Hackathon, [2/233 teams; ~0.8%]

2024

AI Intelligent Travel Checkup. News Article

Taiwan

- 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, [2/44 teams; ~4%]

2024

Campus AI assistant AllPass Project Lead: AI & backend development. News Article | Certificate

Taiwan

## 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 AI Open Competition

- Won the 'Top Accuracy Nationwide Award' in the AI CUP 2024 E.SUN AI Open Competition - 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.