

# Hsin-Ling (Justin) Hsu

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## Education

### National Chengchi University

*Bachelor's in Management Information Systems*

- NCCUPass, Head of AI

Expected Graduation: Jun. 2027

*Taipei, Taiwan*

### National Chengchi University

*Bachelor's in Mathematical Sciences (Transferred to MIS)*

- Google GDG NCCU, Lecturer and Core Member

Sept. 2023 – Aug. 2024

*Taipei, Taiwan*

## Work Experience

### AI Intern

*GoFreight*

- 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.

Sept. 2024 – Present

*Taipei, Taiwan*

### Research Assistant

*Institute of Information Science, Academia Sinica*

- 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.

May 2024 – Present

*Taipei, Taiwan*

### Part-time Engineer

*ChainSea Information Group*

- 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.

Jul. 2023 – Sept. 2024

*Taipei, 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

*NCCUPass, 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, 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.

## Awards & Honors

### 2nd Place in AI Interdisciplinary Sustainability Innovation Competition

2024

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

### 11th Place (Top 6%) in National LINE FRESH Campus Competition

2024

*AI Dementia Medical Care Platform*

- Led system architecture design, AI & backend development

### Top 20 in National HOTAI MaaS Hackathon

2024 – Present

*AI Intelligent Travel Checkup*

*(Semi-final ongoing)*

- Led system architecture design, AI & full-stack development