Tsai Hsuan Lin

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/ Sophia Lin

National Taiwan University (Sep 2024 – Present)

Master in Information Management, Communication and Multimedia Laboratory

National Central University (Sep 2020 – Jun 2024)

BBA in Information Management, minor in Computer Science

- Relevant Courses: Artificial Intelligence and Machine Learning, Database Management, Systems Analysis and Design, Data Structures, Algorithms, Operating System, Computer Architecture, Compiler, Assembly Language
- GPA: 4.22/4.3; Honors: Presidential Award * 1, Dean's Award * 3



Experiences

Sep 2024 – Present

Communication and Multimedia Laboratory | NTU

- Research Field: Human-Computer Interaction (HCI)
- Publication :
 - (ACM CHI EA'25) Wandering Spirit: Exploring Cooperative Mixed-Reality Gameplay with Shared Physical Props
 - Winner of Student Game Competition Category Innovative Interfaces
 - DOI: 10.1145/3706599.3720314
 - Contributors: Wang WenFan, Lee TingYing, *Lin TsaiHsuan*, Hsiao DuoJie, Hsieh CheHan, Tseng YuTing, and Louie Lo

Jul 2023 – Aug 2024

Field Application Engineer Intern | Intel

- Conduct AI market research and provide hands-on demos (e.g., OpenVINO, RAG), sharing insights with the team
- Developed a tool to automatically convert product information into roadmaps, addressing different needs, reducing the repetitive manual work of FAEs in preparing communication materials
- Event support for Intel Tech Tour, Computex, and OEM training sessions

Mar 2023 - Aug 2023

Web Team Member | OpenHCI

- Develop OpenHCI'23 workshop and 2023 TAICHI conference websites, both receiving 1,000+ visits from students and professors. (* TAICHI: Taiwanese Association of Computer-Human Interaction)
- Next.js Full-Stack, three.js 3D animation



Sep 2020 - Jun 2024

NCU Swimming Team | Member

- Train with 30+ swimmers, representing NCU in national and regional sports games
- Compete annually in the National Intercollegiate Athletic Games with athletes from universities across Taiwan

Sep 2020 – Jun 2022

NCU IM Student Association | Member & Co-Team Lead

- Lead a team of 8 in organizing and executing departmental events
- Plan and co-host career planning and experience sharing events for students



Projects

RAG-Based Personalized Paper Writing Assistance System

2025

- Utilized LangChain framework and quantized Llama model, exploring the differences between retrieval methods, including embedding, TF-IDF vectorizer, and BM25
- Designed with a localized and human-in-the-loop approach, ensuring personalized, context-aware assistance while maintaining human oversight in the research process

Taigi 2024

- An Android speech-to-speech Taiwanese translation app that helps facilitate communication between foreign caregivers and elders
- Created with Flutter, FastAPI, Firebase, and Fairseq translation models

Machine Learning Projects

2023

- Art Classification: Classifying artworks by artist names with custom CNN model
- Sentiment Analysis: Fine-tuned BERT model to predict sentiments expressed in text
- Maze Solving: Implemented with Q-learning. Take the minimum steps to get the treasures and complete the maze

Mini-LISP Interpreter 2023

• Simple interpreter that processes a subset of LIPS language, implemented with Flex and BISON

Soccer Game 2022

• A soccer game written in x86 assembly language



Skills

Programming

C/C#, Python, Java, html/css, JavaScript, SQL, Assembly

Language

Japanese: JLPT N2

English: TOEIC 910/990, GEPT High-Intermediate Level