

Yu-Hsiang Huang

Taipei, Taiwan

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Education

National Taiwan University (NTU)

Taipei, Taiwan

M.S. MAJORED IN COMPUTER SCIENCE AND INFORMATION ENGINEERING

2022/09 - PRESENT

- Advisor: Prof. Shou-De Lin
- Research Topic: Natural Language Processing, Embedding Inversion Attacks, and Large Language Models.

National Taiwan University (NTU)

Taipei, Taiwan

B.S. MAJORED IN COMPUTER SCIENCE AND INFORMATION ENGINEERING

2018/09 - 2022/06

B.S. MINORED IN ECONOMICS

2019/09 - 2022/06

- Cumulative GPA: 3.98 / 4.3
- Academic Excellence Award: Fall 2018

Work Experience

Microsoft

Taipei, Taiwan

APPLIED SCIENTIST INTERN

2023/07 - 2024/06 (Expected)

- Serve as a successful global team player who applies ML and backend in the Maps & Geospatial team using Python and C#.
- Reduced data change time for spelling model by over **95%** by introducing a **hotfix pipeline** and implementing it in C#.
- Accelerated deep speller model inference by **2x faster** by implementing a **regex override pipeline** for model preprocessing and storing the regex in a JSON file.

Appier

Taipei, Taiwan

MACHINE LEARNING SCIENTIST INTERN

2023/02 - 2023/06

- Delivered ML projects by working independently within a fast-paced team environment. Involved in the entire **software development cycle**, including design, development, testing, and deployment.
- Developed a **personalized recommendation model** using Python and fastText framework to generate high-quality product embedding, resulting in a remarkable **10%** increase in click-through rates compared to previous methods.
- Designed a **GPT-based product tagging model** that demonstrated an impressive **40%** performance improvement compared to the previous tagging methods during annotation experiments.
- Enhanced the GPT-based tagging process by implementing **multi-threading** and backup mechanisms, resulting in a remarkable **2.5x** speed boost.

Project

TSMC Quick-Parking System

SKILLS: PYTHON FASTAPI, BACKEND DEVELOPMENT

Fall 2023

- Developed a parking system using Python **FastAPI** framework and stored data in a **PostgreSQL** database.
- Implemented a resilient **CI/CD pipeline** by leveraging GitHub Actions and pre-commit checks, resulting in reduced code verification time, proactively preventing potential errors, and enabling seamless deployments to the **Azure** platform.
- Github link: <https://github.com/coffree0123/tsmc-quick-parking>

Travelight

SKILLS: JAVA SPRING BOOT, BACKEND DEVELOPMENT

Fall 2022

- Collaborated with a team of seven members to develop a travel planning service that utilized **Java Spring Boot** and Google Map API services.
- Worked on our project using a realistic software development approach that included design, development, code review, unit testing, CI/CD pipeline, and deployment.
- Leveraged a **multi-threading** approach to enable asynchronous requests, we accelerated place searches by over **50%**.
- Github link: <https://github.com/JackywithaWhiteDog/travelight>

Gpt-Based Voice Assistant

SKILLS: LANGCHAIN, LLM, NATURAL LANGUAGE PROCESSING

Spring 2023

- Created a voice assistant that can handle multiple tasks using **ChatGPT** and implemented in Python using **LangChain** framework.
- Leveraged **prompting method** that reduced the time required to develop a new skill from **2-3 days** to less than **3 hours**.
- Github link: <https://github.com/coffree0123/gpt-voice-assistant>

Academic Experience

Teaching Assistant

PROBABILITY (PROF. SHOU-DE LIN)

MACHINE LEARNING FOUNDATION/TECHNIQUES (PROF. HSUAN-TIEN LIN)

NTU
Spring 2022
Fall 2020

Machine Discovery & Social Network Mining Lab

ADVISOR: PROF. SHOU-DE LIN

- Investigate the privacy issue and adversarial attack method for document embedding.

NTU
Fall 2021 - Spring 2022

Machine Intelligence and Understanding Lab

ADVISOR: PROF. YUN-NUNG CHEN

- Evaluate the transferability of the dialogue state tracking method on different datasets.

NTU
Spring 2021

Skills

Programming language	Python, C++, Java, C#, Shell script
Machine Learning	Pytorch, Langchain, Transformers, Scikit-learn
Software development	Git, FastAPI, Spring boot, PostgreSQL, Docker