

Yu-Hsiang Huang

Taipei, Taiwan

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Education

National Taiwan University (NTU)

Taipei, Taiwan

ADVISOR: PROF. SHOU-DE LIN

2022/09 - PRESENT

M.S. MAJORED IN COMPUTER SCIENCE AND INFORMATION ENGINEERING

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

Working Experience

Microsoft

Taipei, Taiwan

APPLIED SCIENTIST INTERN

2023/07 - 2024/06 (Expected)

- Introduced a **hotfix pipeline** that slashes data change time for the spelling model from **2 hours** to less than **10 minutes**.
- Enhanced model preprocessing with a **regex override pipeline** significantly accelerates deep speller model inference, achieving a speedup of over **100%**.

Appier

Taipei, Taiwan

MACHINE LEARNING SCIENTIST INTERN

2023/02 - 2023/06

- 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

Travelight

SKILLS: JAVA SPRING BOOT, DEVOPS, BACKEND DEVELOPMENT

Fall 2022

- Built our **CI/CD pipeline** using GitHub action and docker to speed up the delivery process and reduce the error rate.
- Implemented a **multi-threading** approach to achieve asynchronous requests, resulting in a speed-up of more than **50%** for place searches.

Surrogate-Assisted Document Embedding Inversion Attack

ADVISOR: PROF. SHOU-DE LIN

Fall 2022 - Spring 2023

- Developed a decoder that can invert document embeddings using an **adversarial training** framework, given limited query data.
- Our method outperformed other baseline methods by more than **20%** in terms of the precision score under limited training data.

Gpt-Based Voice Assistant

SKILLS: PROMPTING, NATURAL LANGUAGE PROCESSING

Spring 2023

- Developed a voice assistant using **chat-gpt** that can handle multiple tasks.
- Leveraged **prompting method** that reduced the time required to develop a new skill from **2-3 days** to less than **3 hours**.

Academic Experience

Machine Discovery & Social Network Mining Lab

NTU

ADVISOR: PROF. SHOU-DE LIN

Fall 2021 - Spring 2022

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

Machine Intelligence and Understanding Lab

NTU

ADVISOR: PROF. YUN-NUNG CHEN

Spring 2021

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

Skills

Developer tools

Git, WSL, Docker

Programming language

Python, C++, Java, C#

Frameworks and libraries

Pytorch, Langchain, Transformers, Sklearn, Spring boot