Yen-Hsiang Wang

Research Interest

Natural Language Processing

Education

National Chung Hsing University

M.S. in Computer Science. Advisor: Yao-Chung, Fan

Sep. 2020 - Sep. 2022Taichung City, Taiwan

Fu Jen Catholic University

B.S. Computer Science and Information Engineering.

Sep. 2016 - Jun. 2020

New Taipei City, Taiwan

Publications († indicates equal contribution.)

[1] Yen-Hsiang Wang, Feng-Dian Su, Tzu-Yu Yeh, Yao-Chung Fan A Cross-Lingual Statutory Article Retrieval Dataset for Taiwan Legal Studies. In ROCLING 2024.

[2] You-Cheng Liao, Chen-Jui Yu, Chi-Yi Lin, He-Feng Yun, Yen-Hsiang Wang, Hsiao-Min Li, Yao-Chung Fan. Learning-From-Mistakes Prompting for Indigenous Language Translation. In ACL LoResMT 2024.

[3] Xingdi Yuan, Tong Wang, **Yen-Hsiang Wang**[†], Emery Fine, Rania Abdelghani, Pauline Lucas, Hélène Sauzéon, Pierre-Yves Oudever. Selecting better samples from pre-trained LLMs: a case study on question generation. In Findings of ACL 2023.

[4] Rania Abdelghani, Yen-Hsiang Wang, Xingdi Yuan, Tong Wang, Pauline Lucas, Hélène Sauzéon, Pierre-Yves Oudeyer. GPT-3-driven pedagogical agents to train children's curious question-asking skills. In International Journal of Artificial Intelligence in Education.

Experience

National Chung Hsing University Natural Language Processing Lab

Jan. 2024 - Recent

Research Assistant

Taichung, Taiwan

- · Researching on extremely low-resource machine translation, exploring how LLMs can enhance translation for Indigenous languages by leveraging Chain-of-Thought reasoning by giving relevant pattern sentences by retrieval. [LoResMT ACL'24]
- Proposed a method for generating a synthetic legal QA dataset and validating the performance of Sparse embedding, Dense embedding, and LLM query expansion in legal domain retrieval. [Github link]
- Building a retrieval augmentation generation application for agricultural domain question-answering, focusing on retrieval and re-ranking methods to enhance accuracy. [Shennong-TAIDE].

EmotiBot

Jun. 2023 - Dec. 2023

Machine Learning Engineer

Taipei, Taiwan

· Responsible for the AI applications development of intelligent customer support utilizing Large Language Models (LLM) and Retrieval-Augmented Generation (RAG) architecture.

Inria, National Institute for Research in Digital Science and Technology

Mar. 2022 - Sep. 2022

Research Engineer Intern

- Exploring the Educational application of large language models (LLMs) to automate the generation of diverse content to foster curiosity-driven questions among elementary students, reducing the need for manual intervention. [IJAIED]
- Researching on Question Generation Sampling and Evaluation of large language models. [ACL'23]

Industrial Technology Research Institute

Jul. 2021 - Aug. 2021

Software Engineer Intern

Hsinchu, Taiwan

- Training Transformer-based model for Legal Judgement Question-Answering.
- Development of Manual Annotation System for Data Labeling.

Selected Project

 $\textbf{PTT Search Engine} \mid \textit{Vue.js, Flask, ElasticSearch, Docker}$

 $Oct.\ 2020-Jan.\ 2021$

- Built a search engine including all articles and commands crawled from popular boards on PTT(web forum).
- Implemented BM25 (Elastic Search) for retrieving comments from the database and processed the data using Object-Oriented Programming techniques.
- [Github Link]