

Yu-Ting Lee

☎ +886+9+06782385 | ✉ yutinglee.nlp@gmail.com | **in** [LinkedIn](#) | [GitHub](#) | [Website](#)

NLP Engineer with 6 years of experience, encompassing with 7 years of machine learning expertise.

SKILLS

Languages: Python, Mojo, Node.js, Julia, SQL, R, C/C++, Java, MATLAB

Software & Tools: PyTorch, PyTorch Lightning, Qdrant, vLLM, LlamaIndex, GCP, GNU/Linux, Hugging Face, Gradio, Git, Docker, FastAPI, Nginx, Serverless GPU

NLP Techniques: Multimodal LLMs, Hybrid Search, Keyword Search, Embeddings, RAG, Fine-tune LLMs, Text Generation, Multi-Document Summarization, Recommendation System

WORK EXPERIENCE

AI Engineer

Wingene Data Science Inc.

June 2024 – Present

Taipei City, Taiwan

- Developing **table search module**, **finetuning embeddings** and **multimodal LLMs** for data changes in medical monitoring data for National Health Insurance Administration, Ministry of Health and Welfare, Taiwan.
- Developing **hybrid search and keyword search algorithms** for users to retrieve relevant medical monitoring data for National Health Insurance Administration, Ministry of Health and Welfare, Taiwan.

Research Assistant

Institute of Information Science, Academia Sinica

Oct 2023 – June 2024

Taipei City, Taiwan

- Developed a system for [Research Methods Generation](#).
- Applying algorithms to time-series contents generation settings with chain-of-thoughts, and few-shot learning, then further evaluate with state-of-the-art text generation models.

Graduate Research Assistant

Institute of Information Science, Academia Sinica

Oct 2021 – Oct 2023

Taipei City, Taiwan

- Developed a state-of-the-art [Knowledge Updating System in Full-Text](#), enabled collaborated content generation with GPT-4, performs 30% better than existed models.
- Fine-tuned LLaMA based models (Alpaca, Vicuna) with LoRA and Adapter.

EDUCATION

National Chengchi University

Department of Computer Science, Master's Degree

Taipei City, Taiwan

Sep 2021 – Oct 2023

- Advised by Tsai-Yen Li and Hen-Hsen Huang.
- Essay: [Knowledge Update in Full Text Triggered by a News Event](#). Developed LLM for knowledge updating, outperformed state-of-the-art LLMs (e.g. GPT-4, LLaMA, Vicuna, etc.).

Chung Shan Medical University

Department of Medical Informatics, Bachelor's Degree

Taichung City, Taiwan

Sep 2017 – June 2021

- Honor: Supported by the Ministry of Science and Technology Research Fellowship for NLP research.

PUBLICATIONS

A Multi-grained Dataset for News Event Triggered Knowledge Update

Yu-Ting Lee, Ying-Jhe Tang, Yu-Chung Cheng, Pai-Lin Chen, Tsai-Yen Li and Hen-Hsen Huang. 2022. In *Proceedings of the 31st ACM International Conference on Information and Knowledge Management (CIKM 2022)*. (Oral Presentation)

A Sentiment Analysis Method based on a Transformer and a Recurrent Neural Network

Yu-Ting Lee, Yen-Ching Chang. 2020. *National Taiwan University Management Reviews: 1st Management and Medical Sciences Interdisciplinary Conference*. (Poster Presentation)

ACADEMIC ACTIVITIES

- **Reviewer**, International Committee on Computational Linguistics (**COLING 2024, 2025**)
- **Program Committee Member**, Conference on Computational Linguistics and Speech Processing (**ROCLING 2024**)
- **Invited Talk**, "Enhancing Knowledge-Intensive Tasks with Embeddings and Generative Models," Chung Shan Medical University, **November 2024**
- **Invited Talk**, "Dense Information Retrieval with LLMs," Chung Shan Medical University, **March 2024**
- **CIKM Student Travel Grant**, Academia Sinica & National Science and Technology Council, **October 2022**

OUTREACH

Open-Source Contribution – CAG, Academia Sinica Jan 2025 – Jan 2025

- [CAG](#): Cache-Augmented Generation: A Simple, Efficient Alternative to RAG.

Open-Source Contribution – Lit-LLaMA, Lightning AI Inc. June 2023 – July 2023

- [Lit-LLaMA](#): Independent implementation of LLaMA pretraining, finetuning, and inference code that is fully open source. Fixed partial functions for fine-tuning LLaMA.

Teaching Assistant – Practical NLP — Taiwan AI Academy Aug 2022 – Sep 2022
Supervised by Hen-Hsen Huang *New Taipei City, Taiwan*

- Designed lectures and taught a two-week NLP project to support 20 intermediate practitioners.
- Taught Project: [Summary Generation Tool for News during Important Time Durations](#).

PROJECTS

Dynamic README Generation

Automatically update READMEs with each commit, highlighting new features and changes, saving time and enhancing documentation accuracy and clarity. [[GitHub](#)]

Automated Generation and Evaluation of Research Methods in NLP

Developing an innovative system designed to automatically generate research methodologies based on specified objectives and a review of related work in the field. [[GitHub](#)][[Demo](#)]

News Event Triggered Article Updating System

Developed a system utilizing advanced LLMs, focusing on full-text knowledge updating in response to real-time news events, enhancing article accuracy. [[GitHub](#)][[Demo](#)]

Summary Generation Tool for News during Important Time Durations (SGIT)

Developed NLP tool for summarizing COVID-19 social media content, countering misinformation, and improving public response through objective news analysis. [[GitHub](#)]