Cheng-Han **Chiang** 姜成翰

Fourth-Year Ph.D. Student · National Taiwan University

Taipei, Taiwan

dcml0714@gmail.com | d223302.github.io | d223302 | @dcml0714 | Cheng-Han, Chiang

About me

I am a fourth-year Ph.D. student at National Taiwan University in Taipei, Taiwan. I am a member of the Speech Processing and Machine Learning (SPML) Lab, and I am very lucky to be advised by Prof. Hung-yi Lee. My main research interests broadly cover different aspects of natural language processing (NLP):

- **Automatic evaluation with LLM**: I propose the **LLM evaluation** (**LLM-as-a-judge**) framework [8] and study how to make them perform better [6, 1] and applied them in real world applications [2]. I also explore using LLM to automatically evaluate factuality [3].
- **LLM reasoning**: I study the excessive reasoning of LLMs [4].
- **Adversarial Attacks in NLP**: My works study the characteristics of adversarial samples in NLP [15] and reveal that many adversarial attacks in NLP are not as good as we thought [7]
- **Human evaluation**: I explore the instability of human evaluation in NLP [14] and speech processing [5]

Education

National Taiwan University (NTU) *Taipei, Taiwan*

PH.D. Student in Communication Engineering *Feb 2022 - Present*

- Advisor: Hung-yi Lee
- Direct pursuit of the Ph.D. degree
- M.S student in Graduate Institute of Communication Engineering (GICE) at National Taiwan University from Sep. 2020 to Jan. 2022

National Taiwan University (NTU) *Taipei, Taiwan*

B.S. in Electrical Engineering *Sept 2016 - June 2020*

Research Experience

Supervisor: Dr. Xiaofei Wang *Remote*

Microsoft GenAI *Jan. 2025 - Present*

- Evaluation of **Audio Language Models** and **Spoken Language Models**
- **Multimodal LLM reasoning**

Supervisor: Dr. Hung-yi Lee *Taipei, Taiwan*

NTU Speech Processing and Machine Learning Lab. *Aug. 2020 - Present*

- **Large language models** and **self-supervised learning** [12, 8, 11, 10, 9]
- **Automatic evaluations** and **human evaluations** in NLP [1, 2, 3, 6, 8, 5, 14]
- **Adversarial attacks** in NLP [7, 15]

Publications

In Proceedings

[1] TRACT: Regression-Aware Fine-tuning Meets Chain-of-Thought Reasoning for LLM-as-a-Judge
Cheng-Han Chiang, Hung-yi Lee, Michal Lukasik
Proceedings of the 63th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers), 2025, Vienna, Austria

[2] Large Language Model as an Assignment Evaluator: Insights, Feedback, and Challenges in a 1000+ Student Course
Cheng-Han Chiang, Wei-Chih Chen, Chun-Yi Kuan, Chienchou Yang, Hung-yi Lee
Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing, 2024, MIA, USA

[3] Merging Facts, Crafting Fallacies: Evaluating the Contradictory Nature of Aggregated Factual Claims in Long-Form Generations
Cheng-Han Chiang, Hung-yi Lee
Findings of the Association for Computational Linguistics: ACL 2024, 2024, Bangkok, Thailand

[4] Over-Reasoning and Redundant Calculation of Large Language Models
Cheng-Han Chiang, Hung-yi Lee
Proceedings of the 18th Conference of the European Chapter of the Association for Computational Linguistics (Volume 2: Short Papers), 2024, St. Julian's, Malta

[5] Why We Should Report the Details in Subjective Evaluation of TTS More Rigorously
Cheng-Han Chiang, Wei-Ping Huang, Hung-yi Lee
Proc. Interspeech 2023, 2023, Dublin, Ireland

[6] A Closer Look into Automatic Evaluation Using Large Language Models
Cheng-Han Chiang, Hung-yi Lee
Findings of the Association for Computational Linguistics: EMNLP 2023, 2023, Singapore

[7] Are Synonym Substitution Attacks Really Synonym Substitution Attacks?
Cheng-Han Chiang, Hung-yi Lee
Findings of the Association for Computational Linguistics: ACL 2023, 2023, Toronto, Canada

[8] Can Large Language Models Be an Alternative to Human Evaluation?
Cheng-Han Chiang, Hung-yi Lee
Proceedings of the 61th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers), 2023, Toronto, Canada

[9] Recent Advances in Pre-trained Language Models: Why Do They Work and How Do They Work
Cheng-Han Chiang, Yung-Sung Chuang, Hung-yi Lee
Proceedings of the 2nd Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics and the 12th International Joint Conference on Natural Language Processing: Tutorial Abstracts, 2022, Taipei

[10] On the transferability of pre-trained language models: A study from artificial datasets
Cheng-Han Chiang, Hung-yi Lee
Proceedings of the AAAI Conference on Artificial Intelligence, 2022

[11] Pretrained Language Model Embryology: The Birth of ALBERT
Cheng-Han Chiang, Sung-Feng Huang, Hung-yi Lee
Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP), 2020, Online

Workshop Papers

[12] Do Metadata and Appearance of the Retrieved Webpages Affect LLM's Reasoning in Retrieval-Augmented Generation?
Cheng-Han Chiang, Hung-yi Lee
The 7th BlackboxNLP Workshop, 2024

[13] Revealing the Blind Spot of Sentence Encoder Evaluation by HEROS
Cheng-Han Chiang, Yung-Sung Chuang, James Glass, Hung-yi Lee
Proceedings of the 8th Workshop on Representation Learning for NLP, 2023, Toronto, Canada

[14] Re-Examining Human Annotations for Interpretable NLP
Cheng-Han Chiang, Hung-yi Lee
Explainable Agency in Artificial Intelligence Workshop of the AAAI Conference on Artificial Intelligence, 2022

Preprints

[15] Understanding, Detecting, and Separating Out-of-Distribution Samples and Adversarial Samples in Text Classification
Cheng-Han Chiang, Hung-yi Lee
arXiv preprint arXiv:2204.04458 (2022)2022

Professional Talks

Conference Tutorials

ICASSP 2024 — *Seoul, Korea*
Parameter-Efficient and Prompt Learning for Speech and Language Foundation Models — *2024*
- Tutorial speaker for prompt learning in NLP

ICASSP 2023 — *Rhodes Island, Greece*
Parameter-Efficient Learning for Speech and Language Processing: Adapters, Prompts, and Reprogramming — *2023*
- Tutorial speaker for parameter-efficient learning in NLP

AACL-IJCNLP 2022 — *Virtual*
Recent Advances in Pre-trained Language Models: Why Do They Work and How Do They Work — *2022*
- Main organizer of the tutorial
- Tutorial website: `https://d223302.github.io/AACL2022-Pretrain-Language-Model-Tutorial/`
- Tutorial recordings: `https://youtu.be/thr4-hgLhi8`

Honors & Awards

2024 **Best Paper Award**, Towards Knowledgeable Language Models Workshop, ACL 2024 — *Bangkok, Thailand*
2024 **Hon Hai Technology Award**, Hon Hai Education Foundation — *Taiwan*
2023 **Google PhD Fellowship**, Google — *Global*