YINHONG LIU

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EDUCATION EXPERIENCE

University of Cambridge, Language Technology Lab; PhD

2021.10 - present

- Supervisor: Prof. Nigel Collier
- Research area: Large Language Model (LLM) Evaluation and Alignment. Text and Multimodal Evaluation Techniques. Controllable Text Generation. Data Synthesis for Alignment and Down-stream applications. Advanced Dialog Systems. Discourse Structure Analysis for Long-form Text.
- Scholarship: Cambridge Trust

University of Cambridge, Computer Lab; Mphil

2020 - 2021

- Subject: Advanced Computer Science, in Natural Language Processing.
- Grade: **Distinction**.
- Research area: Learning Functional Distributional Semantics from Multi-modal data.

University of Cambridge, Engineering Department; BA, MEng

2014 - 2018

- Subject: Information Engineering and Computer Science.
- Grade in Master of Engineering: Merit degree with honours.
- Grade in Bachelor of Arts: 1st Class.
- Final year project: Statistical enhancement of multi-channel audio data.

WORK, RESEARCH EXPERIENCE

Mircrosoft Research; Cambridge. Research Intern

Jun. 2024 - Sep. 2024

· Developed an advanced Automatic Prompt Optimization pipeline to enhance Model Migration efficiency and improve Model Routing for Microsoft Copilot teams.

AI/ML, Apple; Cambridge. Research Intern

Jun. 2023 - Oct. 2023

- Developed an innovative automatic Task-Oriented Dialog generation pipeline, incorporating advanced analysis of future virtual assistant response styles and simulating complex apps interactions. This work benefits both internal Apple Intelligence development and external NLP community.
- · Authored a research paper detailing the dialog generation methodology, which was accepted by ACL 2024.

Gambit Research; London. Full-time Quant-analyst

Oct. 2018 - Jul. 2020

· Working on various statistical football teams & games modelings, market price & volume predictions, strategies developing and back-testing.

Jigsaw Unintended Bias in Toxicity Classification, Kaggle competition Jun. 2019

· Got a 225th place out of 3165 teams (top 8%), a bronze medal, as a solo participator.

PUBLICATIONS

- Yinhong Liu, Han Zhou, Zhijiang Guo, Ehsan Shareghi, Ivan Vulic, Anna Korhonen and Nigel Collier. Aligning with Human Judgement: The Role of Pairwise Preference in Large Language Model Evaluators. COLM 2024.
- Yinhong Liu, Yimai Fang, David Vandyke and Nigel Collier. TOAD: Task-Oriented Automatic Dialog generation pipeline with diverse system response style. ACL 2024.
- Yinhong Liu, Yixuan Su, Ehsan Shareghi and Nigel Collier. Unlocking Structure Measuring: Introducing PDD, an Automatic Metric for Positional Discourse Coherence. <u>NAACL 2024, main conference</u>.
- Han Zhou, Xingchen Wan, **Yinhong Liu**, Nigel Collier, Ivan Vulić, Anna Korhonen. Fairer Preferences Elicit Improved Human-Aligned Large Language Model Judgments. Under review.
- Zhongshen Zeng, **Yinhong Liu**, Yingjia Wan, Jingyao Li, et al. MR-BEN: A Comprehensive Meta-Reasoning Benchmark for Large Language Models. Under review.
- Yinhong Liu, Yixuan Su, Ehsan Shareghi and Nigel Collier. Plug-and-play Recipe Generation with Content Planning. EMNLP 2022, Generation, Evaluation & Metrics Workshop.
- Yinhong Liu and Guy Emerson. Learning Functional Distributional Semantics with Visual Data. ACL 2022, main conference.
- Yinhong Liu and Simon Godsill. Multi-channel audio statistical restoration. <u>IEEE-ICSPCC</u>, 2020.

PRIZE & EXTRA-CURRICULUM ACTIVITIES

Best Reviewer Award, EMNLP 2023, Natural Language Generation track.

PhD scholarship: Cambridge International Scholarship by Cambridge Trust.

Academic scholarship: Caldwell Scholarship by Corpus Christi College, University of Cambridge Cambridge Chinese Drama Society: Protagonist in a university play, *Our Assassin*; Producer of two university plays *The Robin Murders* and *The Village*.

LANGUAGE & SKILLS

Languages: Chinese Mandarin (native), English (fluent), Chinese Cantonese (fluent).

Programming Languages: Python, SQL, Latex, C++.