

Yuyan Chen

Postdoctoral Fellowship in Bioinformatics
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EDUCATION

Postdoc in Bioinformatics	Houston Methodist & Weill Cornell Medicine, USA	Oct.2025 - Present
Ph.D. in Computer Science	Fudan University, Shanghai, China	Sep.2021 - Jun.2025
M.S. in Medicine	Sun Yat-sen University, Guangzhou, China	Sep.2018 - Jun.2021
B.S. in Medicine	Zhengzhou University, Zhengzhou, China	Sep.2013 - Jun.2018

RESEARCH INTERESTS

Large Language Models, Multimodal Large Models, Natural Language Processing, Computational Social Science, Game Theory, Information Economics, AI-based Healthcare.

PUBLICATIONS

A total of 34 papers have been published, including 23 as the first author.

A. Understanding, Explanation, Reasoning, and High-Quality Answering with Large Models

A.1. Grounded Multimodal Question Understanding and Complex Reasoning

- 2026 Haoyu Wang, Sihang Jiang, **Yuyan Chen**, Yitong Wang, Xiaojun Meng, Jiansheng Wei, Yanghua Xiao*. Why Did Apple Fall: Evaluating Curiosity in Large Language Models. (Accepted to **ACL 2026**).
- 2025 **Yuyan Chen**, Jiyuan Jia, Jiabin Lu, Siyue Li, Yu Guan, Ming Yang, Qingpei Guo*. VQAGuider: Guiding Multimodal Large Language Models to Answer Complex Video Questions. (Accepted to **ACL 2025**).
- 2024 **Yuyan Chen**, Chenwei Wu, Songzhou Yan, Panjun Liu, Haoyu Zhou, Yanghua Xiao*. Dr. Academy: A Benchmark for Evaluating Questioning Capabilities in Education for Large Language Models. (Accepted to **ACL 2024**).
- 2023 **Yuyan Chen**, Yanghua Xiao*, Bang Liu*, Zhixu Li*. XMQAs: Constructing Complex-Modified Question-Answering Dataset for Robust Question Understanding. (Accepted to **TKDE 2023**).

A.2. Trustworthy Answering for Hallucination Diagnosis Detection and Evidence Distillation

- 2025 **Yuyan Chen**, Zehao Li, Shuangjie You, Zhengyu Chen, Jingwen Chang, Yi Zhang, Weinan Dai, Qingpei Guo, Yanghua Xiao*. Attributive Reasoning for Hallucination Diagnosis of Large Language Models. (Accepted to **AAAI 2025**).
- 2025 Chang Zong, **Yuyan Chen**, Weiming Lu, Jian Shao, Yongfeng Huang, Heng Chang, Yueting Zhuang*. ProSwitch: Knowledge-Guided Instruction Tuning to Switch Between Professional and Non-Professional Responses. (Accepted to **IJCNLP-AAACL 2025**).

- 2025 Zhihong Zhu, Yunyan Zhang, Xianwei Zhuang, Fan Zhang, Zhongwei Wan, **Yuyan Chen**, Qingqing-Long, Yefeng Zheng, Xian Wu. Can We Trust AI Doctors? A Survey of Medical Hallucination in Large Language and Large Vision-Language Models. (Accepted to **ACL 2025**).
- 2023 **Yuyan Chen**, Qiang Fu*, Yichen Yuan, Zhihao Wen, Ge Fan, Dayiheng Liu, Dongmei Zhang, Zhixu Li*, Yanghua Xiao*. Hallucination Detection: Discerning Reliable Responses in Large Language Models. (Accepted to **CIKM 2023**).
- 2022 **Yuyan Chen**, Yanghua Xiao*, Bang Liu. Grow-and-Clip: Informative-yet-Concise Evidence Distillation for Answer Explanation. (Accepted to **ICDE 2022**).
- 2021 Haitian Yang*, Weiging Huang*, Xuan Zhao, Yan Wang*, **Yuyan Chen**, Bin Lv, Rui Mao, Ning Li. AMQAN: Adaptive Multi-Attention Question-Answer Networks for Answer Selection. (Accepted to **ECML-PKDD 2021**).

B. Social Cognition and Interaction Modeling with Large Models

B.1. Social Intelligence and Empathy in Conversations

- 2026 Lei Xia, **Yuyan Chen** (co-first author), Xiangqin Chen, Jixiang Fan, Weinan Dai, Xiaomei Li, Zhixu Li*. Constructing Commonsense Knowledge Graph for Persona Consistency. (Accepted to **WSDM 2026**).
- 2025 **Yuyan Chen**, Lei Xia, Jinghan Cao, Zhendong Hou, Weinan Dai, Zhixu Li*. High-Context Empathy in Conversations for Large Language Models. (Accepted to **CIKM 2025**).
- 2025 **Yuyan Chen**, Jiyuan Jia, Jingwen Chang, Kaiwen Zuo, Yanghua Xiao*. SPEAKSMART: Evaluating Empathetic Persuasive Responses by Large Language Models. (Accepted to **Journal of Computer Science**).
- 2025 Zixi Jia*, Qinghua Liu, Hexiao Li, **Yuyan Chen**, Jiqiang Liu. Evaluating the Long-Term Memory of Large Language Models. (Accepted to **ACL 2025**).
- 2024 **Yuyan Chen**, Hao Wang, Songzhou Yan, Sijia Liu, Yueze Li, Yi Zhao, Yanghua Xiao*. EmotionQueen: A Benchmark for Evaluating Empathy of Large Language Models. (Accepted to **ACL 2024**).

B.2. Multimodal Creative Understanding and Generation

- 2026 **Yuyan Chen**, Zhendong Hou, Lei Xia, Jiahao Li, Zhuolin Ji, Zhixu Li*. AesX: Enhance Your Images with Stunning Aesthetic Beauty. (Accepted to **ACL 2026**).
- 2026 Zhihong Zhu, Fan Zhang, Yunyan Zhang, Jinghan Sun, Guimin Hu, Hao Wu, **Yuyan Chen**, Bowen Xing, Xian Wu. S-MSD: Large Vision-Language Model for Explainable and Generalizable Multi-modal Sarcasm Detection. (Accepted to **AAAI 2026**).
- 2025 **Yuyan Chen**, Yifan Jiang, Li Zhou, Jinghan Cao, Yu Guan, Ming Yang, Qingpei Guo*. Engage for All: Making Ordinary Image Descriptions Appealing Again! (Accepted to **ICCV 2025**).
- 2024 **Yuyan Chen**, Yichen Yuan, Panjun Liu, Dayiheng Liu, Qinghao Guan, Mengfei Guo, Haiming Peng, Zhixu Li*, Yanghua Xiao* and Bang Liu*. Talk Funny! A Large-scale Humor Response Dataset with Chain-of-Humor Interpretation. (Accepted to **AAAI 2024**).
- 2024 Zhihong Zhu, Zhaorun Chen, Yunyan Zhang, Xiaoqi Jiao, **Yuyan Chen**, Zhiq Huang, Bowen Xing, Xian Wu, Yefeng Zheng*. DGLF: A Dual Graph-based Learning Framework for Multi-modal Sarcasm Detection. (Accepted to **EMNLP 2024**).
- 2024 **Yuyan Chen**, Songzhou Yan. Zhixu Li*, Yanghua Xiao*. XMeCap: Meme Caption Generation with Sub-Image Adaptability. (Accepted to **ACM Multimedia 2024**).
- 2024 **Yuyan Chen**, Yiwen Qian, Songzhou Yan, Jiyuan Jia, Zhixu Li, Yanghua Xiao, Xiaobo Li, Aaron Xuxiang Tian, Ming Yang, Qingpei Guo*. HOTVCOM: Generating Buzzworthy Comments for Videos. (Accepted to **ACL 2024**).

- 2024 Zhihong Zhu, Xuxin Cheng, Zhaorun Chen, **Yuyan Chen**, Yunyan Zhang, Xian Wu, Yefeng Zheng, Bowen Xing*. InMu-Net: Advancing Multi-modal Intent Detection via Information Bottleneck and Multi-sensory Processing. (Accepted to **ACM Multimedia 2024**).
- 2023 **Yuyan Chen**, Zhixu Li*, Jiaqing Liang, Yanghua Xiao*, Bang Liu*, Yunwen Chen. Can Pre-trained Language Models understand Chinese Humor? (Accepted to **WSDM 2023**).

C. Mechanism Inference and Data Efficient Learning with Large Models

- 2026 Haoyu Wang, Sihang Jiang, Xiangru Zhu, **Yuyan Chen**, Xiaojun Meng, Jiansheng Wei, Yitong Wang, Yanghua Xiao*. MMIFEvol: Towards Evolutionary Multimodal Instruction Following. (Accepted to **AAAI 2026**).
- 2025 Yi Zhang, Chun-Wun Cheng, Junyi He, Zhihai He*, Carola-Bibiane Schönlieb, **Yuyan Chen**, Angelica I Aviles-Rivero. Cross-Modal Few-Shot Learning with Second-Order Neural Ordinary Differential Equations. (Accepted to **AAAI 2025**).
- 2024 **Yuyan Chen**, Tianhao Yu, Yueze Li, Songzhou Yan, Sijia Liu, Jiaqing Liang, Yanghua Xiao*. Do Large Language Models have Problem-Solving Capability under Incomplete Information Scenarios? (Accepted to **ACL 2024**).
- 2023 **Yuyan Chen**, Qiang Fu*, Ge Fan, Lun Du, Jian-Guang Lou, Shi Han, Zhixu Li*, Yanghua Xiao*, Dongmei Zhang. Hadamard Adapter: An Extreme Parameter-Efficient Adapter Tuning Method for Pre-trained Language Models. (Accepted to **CIKM 2023**).
- 2023 **Yuyan Chen**, Zhihao Wen, Ge Fan, Zhengyu Chen, Wei Wu*, Dayiheng Liu, Zhixu Li, Bang Liu, Yanghua Xiao*. MAPO: Boosting Large Language Model Performance with Model-Adaptive Prompt Optimization. (Accepted to **EMNLP 2023**).

D. AI for Healthcare and Biomedical Discovery

- 2025 **Yuyan Chen**, Qingpei Guo*, Shuangjie You, Zhixu Li*. MedTransTab: Advancing Medical Cross-Table Tabular Data Generation. (Accepted to **WSDM 2025**).
- 2025 Chengmei Yang, Bowei He, **Yuyan Chen**, Lianghua He, Chen Ma*. Relation-Guided Cascading Generation for Low-Shot Relational Triplet Extraction. (Accepted to **TASLP 2024**).
- 2024 **Yuyan Chen**, Jin Zhao, Zhihao Wen, Zhixu Li*, Yanghua Xiao*. TemporalMed: Advancing Medical Dialogues with Time-Aware Responses in Large Language Models. (Accepted to **WSDM 2024**).
- 2024 Bo Li, **Yuyan Chen** (co-first author), Liang Zeng*. KENET: Knowledge-Enhanced Doc-Label Attention Network for Multi-Label Text Classification. (Accepted to **ICASSP 2024**).
- 2021 **Yuyan Chen**, Zelong Liu, Yunxian Mo, Bin Li, Qian Zhou, Sui Peng, Shaoqiang Li*, Ming Kuang*. Prediction of post-hepatectomy liver failure in patients with hepatocellular carcinoma based on radiomics using Gd-EOB-DTPA-enhanced MRI:the liver failure model. (Accepted to **Frontiers in Oncology 2021**).

SELECTED PATENTS

A total of 49 national patents are applied (including 41 as the first inventor), with 30 granted (including 22 as the first inventor).

- 2024 **Yuyan Chen**, Yueze Li, Jiaqing Liang, Yanghua Xiao. Evaluation Device for Problem-Solving Capabilities under Incomplete Information for Large Language Models. ZL202410780036.X.
- 2024 **Yuyan Chen**, Yueze Li, Jiaqing Liang, Yanghua Xiao. Evaluation Device for Questioning Capabilities in Education for Large Language Models. ZL202410780038.9.

- 2024 **Yuyan Chen**, Yueze Li, Jiaqing Liang, Yanghua Xiao. Evaluation Device for Emotional Cognition Capabilities of Large Language Models. ZL202410780037.4.
- 2024 **Yuyan Chen**, Tinghao Shi, Zhixu Li, Yanghua Xiao. Method and Device for Generating Popular Comments on Videos for Multimodal Applications. ZL202410088250.9.
- 2024 Qingpei Guo, **Yuyan Chen**, Ming Yang. Video Question-Answering Method, System, Task Parsing Method, and Model Training Method. ZL202410922451.4.
- 2024 **Yuyan Chen**, Jiaqing Liang, Zhixu Li, Yanghua Xiao. Methods for Reducing Hallucinations in Large Language Models. 202411469124.4
- 2023 **Yuyan Chen**, Zhixu Li, Yanghua Xiao, Ge Fan. Parameter-Efficient Adapter Tuning Method for Fine-Tuning Pre-trained Language Models. ZL202310400899.5.
- 2023 **Yuyan Chen**, Zhixu Li, Yanghua Xiao, Fang Guo. Persona Knowledge Graph, Persona Dialogue Dataset, and Persona Consistency Method. ZL202310348845.9.
- 2023 **Yuyan Chen**, Zhixu Li, Jiaqing Liang, Yanghua Xiao. Method for Exploring Humor Understanding Capabilities of Pre-trained Language Models. ZL202310098163.7.
- 2023 **Yuyan Chen**, Yanghua Xiao, Zhixu Li. Knowledge-Enhanced Document-Label Attention Method for Multi-Label Text Classification. ZL202310090342.6.
- 2023 **Yuyan Chen**, Zhixu Li, Jiaqing Liang, Yanghua Xiao, Fang Guo. Adaptive Prompt Enhancement Method for Large-Scale Language Models. ZL202311195451.0.
- 2023 **Yuyan Chen**, Zhixu Li, Jiaqing Liang, Yanghua Xiao, Fang Guo. Hallucination Detection Method for Answers Generated by Large-Scale Language Models. ZL202311195452.5.
- 2023 **Yuyan Chen**, Zhixu Li, Jiaqing Liang, Yanghua Xiao, Fang Guo. The Method to Enhance the Humorous Response Ability of Pre-trained Language Models for Advanced Machine Cognition. ZL202311195450.6.
- 2023 **Yuyan Chen**, Yanghua Xiao, Zhixu Li. High-Context Empathy Enhancement Response Generation Method and Device for Large Language Models. ZL202311856151.2.
- 2023 **Yuyan Chen**, Yanghua Xiao, Zhixu Li. Solution Generation Method and Device for Nonlinear Reasoning Tasks. ZL202311856150.8.
- 2023 **Yuyan Chen**, Yanghua Xiao, Zhixu Li. Meme Caption Generation Method and Device with Adaptability to Sub-Image Quantities. ZL202311856147.6.
- 2023 **Yuyan Chen**, Yanghua Xiao, Tinghao Shi, Zhixu Li. Time-Aware Response Generation Method and Device for Medical Dialogues. ZL202311856149.5.
- 2023 **Yuyan Chen**, Yanghua Xiao, Zhixu Li. Cross-Table Data Generation Method for the Medical Field. ZL202311856146.1.
- 2022 **Yuyan Chen**, Zhixu Li, Cong Zhang, Jiaqing Liang, Yanghua Xiao. Method for Enhancing Humor Response Capability of Pre-trained Language Models for Higher-Order Machine Cognition. ZL202211239666.3.

SELECTED AWARDS

Including 3 international awards, 13 national awards, 6 provincial or municipal awards, 17 university-level awards (all as the first participant)

- 2025 Global Top 20 for Baidu Scholarship
- 2024 Ph.D National Scholarship
- 2024 Campus Outstanding Student

2023	Tencent Corporate Named Scholarship
2021	Outstanding Graduate
2019	National Second Prize, National College Student Intelligent Technology Application Competition: CANWALK - A Rehabilitation Trainer for Hemiplegic Patients
2018	Third place, CCF Big Data and Computing Intelligence Competition: Intelligent personalized package matching model for telecom industry stock users
2018	Third place, iFLYTEK AI Marketing Algorithm Competition: Predicting users' ad click-through rate
2017	National First Prize, National College English Competition
2016	Honorable Mention, Mathematical Contest in Modeling (MCM)
2016	Campus Academic Star
2016	Campus Entrepreneurship Star

PEER REVIEW

Over 100 papers, including Artificial Intelligence, Natural Language Processing, Computer Vision, Machine Learning, Multimedia, Data Mining, etc.

4 papers	The AAAI Conference on Artificial Intelligence (AAAI)
1 paper	Symposium on Educational Advances in Artificial Intelligence (EAAI)
48 papers	Association for Computational Linguistics (ACL)
1 paper	Empirical Methods in Natural Language Processing (EMNLP)
2 papers	Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)
4 papers	International Conference on Computational Linguistics (COLING)
3 papers	IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)
2 papers	International Conference on Computer Vision (ICCV)
3 papers	International Conference on Learning Representations (ICLR)
5 papers	The International Conference on Machine Learning (ICML)
5 papers	ACM International Conference on Multimedia (ACM Multimedia)
1 paper	IEEE International Conference on Multimedia and Expo (ICME)
2 papers	ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)
7 papers	ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)
6 papers	ACM International Conference on Web Search and Data Mining (WSDM)
1 paper	Knowledge-Based Systems (KBS)