

Wenjun Hou (Ethan)

The Hong Kong Polytechnic University & Southern University of Science and Technology

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🌐 Homepage: <https://wjhou.github.io>

EDUCATION

The Hong Kong Polytechnic University (PolyU)

Hong Kong, China

Southern University of Science and Technology (SUSTech)

Shenzhen, China

Ph.D. Candidate in Computer Science

2021/09 – 2025/12 (Expected)

- **Supervisor:** Prof. Maggie, Wenjie Li (PolyU) & Prof. Jiang Liu (SUSTech)
- **Research Interests:** Natural Language Processing, Multimodal Learning

China Agricultural University (CAU)

Beijing, China

MEng in Computer Science and Technology

2017/09 – 2020/06

Guangdong University of Technology (GDUT)

Guangzhou, China

BEng in Computer Science and Technology

2013/09 – 2017/06

RESEARCH INTERESTS

- **Medical AI:** Radiology Report Generation, Medical VQA, Medical Dialogue Systems
- **Large Language Models**

RESEARCH EXPERIENCES

Clinically Accurate Radiology Report Generation

PolyU&SUSTech

Ph.D. Student

2022/07 – 2025/05

- Proposed an LLM-based report generation framework with supplementary knowledge injection, aiming to improve the accuracy of generated reports (RADAR@ACL'25).
- Proposed an observation-guided report generation framework, aiming to improve the accuracy of generated reports (ORGAN@ACL'23).
- Introduced attribute modeling with spatial and temporal information for precise report generation (RECAP@EMNLP'23 Findings).
- Designed evaluation metrics to measure the inter-report consistency and proposed a lesion-aware mixup for consistent report generation (ICON@EMNLP'24 Findings).

Multimodal LLMs for Medical Image Analysis

SUSTech

Ph.D. Student

2023/09 – 2024/02

- Proposed a spatially memory-augmented multimodal LLM for surgical VQA, by creating contextual information via self-contained inquiry (S²CAN@arXiv).

Emotion and Cause Analysis

CAU

Master Student

2017/09 – 2020/06

- Proposed a joint framework for emotion classification and emotion cause detection (EMNLP'18).
- Devised a PairGCN for emotion-cause pair extraction with GCN for dependency modeling (PairGCN@COLING'20).

WORK EXPERIENCE

AI Agent for E-Commerce

Amazon

Applied Scientist Intern

2025/08 – Present

- Building AI Agents for E-Commerce

PUBLICATIONS

Major Publications

- **Wenjun Hou**, Kaishuai Xu, Yi Cheng, Heng Li, Yan Hu, Wenjie Li, Jiang Liu. 2025. RADAR: Enhancing Radiology Report Generation with Supplementary Knowledge Injection. In *Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics (ACL'25)*.
- **Wenjun Hou**, Yi Cheng, Kaishuai Xu, Yan Hu, Wenjie Li, and Jiang Liu. 2024. ICon: Improving Inter-Report Consistency in Radiology Report Generation via Lesion-aware Mixup Augmentation. In *Findings of the Association for Computational Linguistics: EMNLP 2024 (EMNLP'24 Findings)*.
- **Wenjun Hou**, Yi Cheng, Kaishuai Xu, Wenjie Li, and Jiang Liu. 2023. RECAP: Towards Precise Radiology Report Generation via Dynamic Disease Progression Reasoning. In *Findings of the Association for Computational Linguistics: EMNLP 2023 (EMNLP'23 Findings)*.
- **Wenjun Hou**, Kaishuai Xu, Yi Cheng, Wenjie Li, and Jiang Liu. 2023. ORGAN: Observation-Guided Radiology Report Generation via Tree Reasoning. In *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL'23)*.
- Ying Chen, **Wenjun Hou**, Shoushan Li, Caicong Wu, and Xiaoqiang Zhang. 2020. End-to-End Emotion-Cause Pair Extraction with Graph Convolutional Network. In *Proceedings of the 28th International Conference on Computational Linguistics (COLING'20)*.
- Ying Chen, **Wenjun Hou**, Xiyao Cheng, and Shoushan Li. 2018. Joint Learning for Emotion Classification and Emotion Cause Detection. In *Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing (EMNLP'18)*.

Other Publications

- Kaishuai Xu, Tiezheng Yu, **Wenjun Hou**, Yi Cheng, Chak Tou Leong, Liangyou Li, Xin Jiang, Lifeng Shang, Qun Liu, Wenjie Li. 2024. Subtle Errors Matter: Preference Learning via Error-injected Self-editing. In *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL'25)*.
- Yi Cheng, Xiao Liang, Yeyun Gong, Wen Xiao, Song Wang, Yuji Zhang, **Wenjun Hou**, Kaishuai Xu, Wenge Liu, Wenjie Li, Jian Jiao, Qi Chen, Peng Cheng, Wayne Xiong. 2025. Integrative Decoding: Improve Factuality via Implicit Self-consistency. In *The International Conference on Learning Representations (ICLR'25)*.
- Kaishuai Xu, Yi Cheng*, **Wenjun Hou***, Qiaoyu Tan, Wenjie Li. 2024. Reasoning Like a Doctor: Improving Medical Dialogue Systems via Diagnostic Reasoning Process Alignment. In *Findings of the Association for Computational Linguistics: ACL 2024 (ACL'24 Findings)*.
- Kaishuai Xu, **Wenjun Hou***, Yi Cheng*, Jian Wang, and Wenjie Li. 2023. Medical Dialogue Generation via Dual Flow Modeling. In *Findings of the Association for Computational Linguistics: ACL 2023 (ACL'23 Findings)*.

PREPRINTS

(*indicates equal contribution)

- **Wenjun Hou**, Kaishuai Xu, Yi Cheng, Yan Hu, Wenjie Li, Jiang Liu. 2024. Memory-Augmented Multimodal LLMs for Surgical VQA via Self-Contained Inquiry. *arXiv:2411.10937*.

- Yi Cheng, Xiao Liang, Yeyun Gong, Wen Xiao, Song Wang, Yuji Zhang, **Wenjun Hou**, Kaishuai Xu, et al. 2024. Integrative Decoding: Improve Factuality via Implicit Self-consistency. *arXiv:2410.01556*.
- Yi Cheng, Wenge Liu, Kaishuai Xu, **Wenjun Hou**, Yi Ouyang, Chak Tou Leong, Xian Wu, Yefeng Zheng. 2024. AutoPal: Autonomous Adaptation to Users for Personal AI Companionship. *arXiv:2406.13960*.
- Kaishuai Xu, **Wenjun Hou***, Yi Cheng*, Jian Wang, Wenjie Li. 2024. Medical Dialogue Generation via Intuitive-then-Analytical Differential Diagnosis. *arXiv:2401.06541*.

HONORS & AWARDS

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|---|------|
| ○ National Scholarship for Graduates at CAU | 2018 |
| ○ First Class of Academic Scholarship at CAU | 2018 |
| ○ First Class of Academic Scholarship at GDUT | 2016 |
| ○ Third Class of Academic Scholarship at GDUT | 2015 |

PROFESSIONAL ACTIVITIES

Conference Reviewer

- ICLR (2025), EMNLP Industry (2024), ACL ARR (2024), EMNLP (2023, 2022), COLING (2025, 2024, 2022)

Teaching Assistant

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|---|-------------------------------|
| ○ COMP4424 Extended Reality: Theory and Practice, TA, PolyU | Spring 2023 |
| ○ COMP2S01 Technology Beyond Borders: Service Learning Across Cultural, Ethnic and Community Lines, TA, PolyU | Fall 2021, Spring & Fall 2022 |
| ○ Computational Methods, TA, CAU | Fall 2019 |