Curriculum Vitae

Hanjia Lyu

December 12, 2024

Address: Department of Computer Science

University of Rochester 2513 Wegmans Hall Rochester, NY 14627

Email: hlyu5@ur.rochester.edu

Phone: (412) 614 - 0399

Homepage: https://brucelyu17.github.io/

Research Interest

Data Mining, Computational Social Science, Health Informatics

Education

2021 - Now	University of Rochester, Ph.D. in Computer Science
2019 - 2020	University of Rochester, M.S. in Data Science
2013 - 2017	Fudan University, B.A. in Economics

Recognitions

2024 Google PhD Fellowship 2024 Graduate Student Supplemental Professional Development Funding Award 2024 NSF Student Travel Award, CIKM 2024 2024 Student Travel Award, MIPR 2024 2024 Student Travel Award, ICWSM 2024 2024 Student Travel Award, ICLR 2024 2023 Donald M. and Janet C. Barnard Fellowship 2022 Snap Research Fellowship Semi-Finalist 2021 Graduate Student Scholarship, SBP-BRiMS 2021 2020 First place in the UR Biomedical Data Science Hackathon

Selected Publications

[For a complete list of my publications, please visit my homepage.]

- 1. **Hanjia Lyu***, Jinfa Huang*, Daoan Zhang*, Yongsheng Yu*, Xinyi Mou*, Jinsheng Pan, Zhengyuan Yang, Zhongyu Wei, and Jiebo Luo. GPT-4V(ision) as a social media analysis engine. *ACM Transactions on Intelligent Systems and Technology*, 2025. URL https://arxiv.org/pdf/2311.07547.pdf
- 2. Hanqing Zeng*, **Hanjia Lyu***, Diyi Hu, Yinglong Xia, and Jiebo Luo. Mixture of weak & strong experts on graphs. In *The Twelfth International Conference on Learning Representations, ICLR*, Vienna, Austria, May, 2024. URL https://openreview.net/pdf?id=wYvuY60SdD
- 3. Hanjia Lyu, Song Jiang, Hanqing Zeng, Yinglong Xia, Qifan Wang, Si Zhang, Ren Chen, Chris Leung, Jiajie Tang, and Jiebo Luo. LLM-Rec: Personalized recommendation via prompting large language models. In *Findings of the Association for Computational Linguistics: NAACL 2024*, Mexico City, Mexico, June 2024. Association for Computational Linguistics. URL https://aclanthology.org/2024.findings-naacl.39.pdf
- 4. **Hanjia Lyu***, Jinsheng Pan*, Zichen Wang*, and Jiebo Luo. Computational assessment of hyperpartisanship in news titles. In *AAAI International Conference on Web and Social Media, ICWSM*, Buffalo, NY, USA, June, 2024. URL https://arxiv.org/pdf/2301.06270.pdf
 - $\rightarrow \underline{\textit{Media coverage: UofR News Center, Study Finds, ScienceBlog, EurekAlert!}$

- 5. **Hanjia Lyu**, Arsal Imtiaz, Yufei Zhao, and Jiebo Luo. Human behavior in the time of COVID-19: Learning from big data. *Frontiers in Big Data*, 6:1099182, 2023. URL https://doi.org/10.3389/fdata.2023.1099182
- Hanjia Lyu and Jiebo Luo. Understanding political polarization via jointly modeling users, connections and multimodal contents on heterogeneous graphs. In ACM Multimedia Conference, ACM-MM, Lisbon, Potugal, October, 2022. URL https://doi.org/10.1145/3503161.3547898
- 7. **Hanjia Lyu**, Junda Wang, Wei Wu, Viet Duong, Xiyang Zhang, Timothy D Dye, and Jiebo Luo. Social media study of public opinions on potential COVID-19 vaccines: informing dissent, disparities, and dissemination. *Intelligent medicine*, 2(1):1–12, 2022. URL https://doi.org/10.1016/j.imed.2021.08.001
 - \rightarrow Media coverage: News Medical
- 8. **Hanjia Lyu**, Zihe Zheng, and Jiebo Luo. Misinformation versus facts: Understanding the influence of news regarding COVID-19 vaccines on vaccine uptake. *Health Data Science*, 2022. URL https://doi.org/10.34133/2022/9858292
 - ightarrow Media coverage: Medical Economics, News Medical, News Wise, Medical Xpress
- 9. **Hanjia Lyu**, Yangxin Fan, Ziyu Xiong, Mayya Komisarchik, and Jiebo Luo. Understanding public opinion toward the #StopAsianHate movement and the relation with racially motivated hate crimes in the US. *IEEE Transactions on Computational Social Systems*, 2021. URL https://doi.org/10.1109/TCSS.2021.3136858
 - \rightarrow Media coverage: UofR News Center, Rochester Beacon, Futurity
- 10. **Hanjia Lyu**, Long Chen, Yu Wang, and Jiebo Luo. Sense and sensibility: Characterizing social media users regarding the use of controversial terms for COVID-19. *IEEE Transactions on Big Data*, 7(6):952–960, 2020. URL https://doi.org/10.1109%2FTBDATA.2020.2996401
 - → Media coverage: IEEE Spectrum, Tech Xplore, UofR News Center

Teaching Experience

Guest Lecturer

University of Rochester		2024
CSC 511: Large Language Models		
Adapting Large Language Models for Domain-Specific Applications		
Fudan University MI620017: Insurance Study	Nov.	2023
Generative Artificial Intelligence in Finance and Insurance		
University of Rochester	Sep.	2023

CSC 440: Data Mining

Towards Data Intelligence: Unveiling Insights through Data Mining

Teaching Assistant

University of Rochester	
CSC 480: Computer Models & Limitations	Spring 2023
CSC 486: Computational Complexity	Spring 2023
CSC 440: Data Mining	Fall 2022
CSC 446: Machine Learning	Spring 2022
CSC 440: Data Mining	Fall 2021
CSC 440: Data Mining	Fall 2020

Industry Experience

Meta Platforms, Inc.

Remote

Research Scientist Intern (Part-Time) Oct. 2024 - Jan. 2025

Mentors: Dr. Yinglong Xia

Meta Platforms, Inc.

Menlo Park, CA

Research Scientist Intern (Full-Time)

June - Oct. 2024

Mentors: Dr. Yinglong Xia

Meta Platforms, Inc.

Menlo Park, CA

Research Scientist Intern (Full-Time) Apr. - Aug. 2023

Mentors: Dr. Hanqing Zeng, Dr. Yinglong Xia

Meta Platforms, Inc.

Menlo Park, CA

Research Scientist Intern (Full-Time) May - Sep. 2022

Mentors: Fiona Tang, Dr. Ren Chen, and Dr. Yinglong Xia

Wyze Labs, Inc.

Remote

Research Scientist Intern (Part-Time)

Jan. - May 2022

Mentors: Dr. Mohammad Mahdi Kamani, Dr. Zhongwei Cheng,

and Dr. Lin Chen

Invited Talks

GPT-4V as A Social Media Analysis Engine, Synchronous Reading Club Jan. 2024

Generative Artificial Intelligence in Finance and Insurance, Fudan University Nov. 2023

DEFirst Reading Group at Mila x Vector Institute, Virtual Oct. 2023

Western New York Image and Signal Processing Workshop, Rochester Insti- Nov. 2022

tute of Technology

Great Lakes Science Boot Camp for Librarians, Virtual

June 2022

China Research Workshops at the Fudan-UC Center on Contemporary China, May 2022

UCSD

InsurTech Innovation: UK & China as Hotspots of the Global World, Virtual Apr. 2022

CSUG Research Panel, University of Rochester Oct. 2021

Experience Rochester, Virtual Sep. 2020

Service to the Research Community

Organizing Committee

1st Multimodal Learning for Social Good (MML4SG) workshop at ICME 2024

 1^{st} Visual-Language Alignment in Text-Guided Multi-Modal Generation (TMMG) workshop at ICME 2024

Area Chair

EMNLP (2024)

NAACL (2025)

ACL Rolling Review (since June 2024)

Editor for Journals

Frontiers in Public Health

Program Committee/Reviewer for Conferences

AAAI (2023-2025)

ACL (2024)

ACML (2024)

ACMMM (2023-2024)

AISTATS (2025)

ASONAM (2023-2024)

BigData (2024)

CIKM (2022-2024)

EMNLP (2023)

ICDM (2021, 2023)

ICLR (2025)

ICLS (2022)

ICME (2024, 2025)

```
ICML (2025)
ICPR (2024)
ICWSM (2021-2025)
IJCNLP-AACL (2023)
KDD (2023-2025)
NeurIPS (2024)
NeurIPS Datasets and Benchmarks (2023-2024)
SDM (2024)
WSDM (2024-2025)
WWW (2022)
```

Reviewer for Journals

```
Machine Learning/Artificial Intelligence
```

ACM Transactions on Information Systems

ACM Transactions on Interactive Intelligent Systems

IEEE Transactions on Knowledge and Data Engineering (TKDE)

IEEE Transactions on Multimedia (TMM)

IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

Data Science/Computational Social Science

Journal of Big Data

Telematics and Informatics

Health Informatics

BMC Public Health

Frontiers in Psychiatry

Frontiers in Psychology

Multidisciplinary

PLOS ONE

SAGE Open

Scientific Reports