

# Hanjia Lyu

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## Education

- **University of Rochester**, Rochester, NY.
  - Ph.D. student in Computer Science, Department of Computer Science. August 2021 – Present.
  - Master of Science in Data Science, Goergen Institute for Data Science. August 2019 – December 2020.
- **Fudan University**, Shanghai, China.
  - Bachelor of Economics in Insurance, Minor in Data Science, School of Economics. September 2013 – June 2017.

## Research Interest

- Data Mining, Computational Social Science, Network Science, Health Informatics, Machine Learning

## Awards

- **First place in the UR Biomedical Data Science Hackathon Summer 2020** on estimating the Global Respiratory Severity Scores of the infants experiencing their first Respiratory Syncytial Virus season.

## Publications

- **Journals**
  - **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.
  - **Hanjia Lyu**, Yangxin Fan, Ziyu Xiong, Mayya Komisarich, 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.
  - **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*, 2021.
  - Ziyu Xiong, Pin Li, **Hanjia Lyu**, and Jiebo Luo. Social Media Opinions on Working from Home in the United States During the COVID-19 Pandemic: Observational Study. *Journal of Medical Internet Research: Medical Informatics*, 2021.
  - Wei Wu, **Hanjia Lyu**, and Jiebo Luo. Characterizing Discourse about COVID-19 Vaccines: A Reddit Version of the Pandemic Story. *Health Data Science*, 2021.
  - Xupin Zhang, **Hanjia Lyu**, and Jiebo Luo. What Contributes to a Crowdfunding Campaign's Success? Evidence and Analyses from GoFundMe Data. *IEEE Journal of Social Computing*, 2021.
  - Xiyang Zhang, Yu Wang, **Hanjia Lyu**, Yipeng Zhang, Yubao Liu, and Jiebo Luo. The Influence of COVID-19 on people's Well-Being: Big Data Methods for Capturing Working Adults' Well-being and Protective Factors Nationwide. *Frontiers in Psychology*, 2021.
  - Yipeng Zhang, **Hanjia Lyu\***, Yubao Liu\*, Xiyang Zhang, Yu Wang, and Jiebo Luo. Monitoring Depression Trends on Twitter During the COVID-19 Pandemic: Observational Study. *Journal of Medical Internet Research: Infodemiology*, 2021.
  - Siqing Cao, **Hanjia Lyu**, and Xian Xu. InsurTech Development: Evidence from Chinese Media Reports. *Technological Forecasting & Social Change*, 2020.
  - **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*, 2020.
- **Conferences**
  - Ahsan Imtiaz, Danish Khan, **Hanjia Lyu**, and Jiebo Luo. Taking sides: Public Opinion over the Israel-Palestine Conflict in 2021. International Workshop on Social Sensing (SocialSens): Special

Edition on Belief Dynamics, *AAAI International Conference on Web and Social Media (ICWSM)*, Atlanta, Georgia and online, June 2022.

- Yichi Qian, Qiyi Shan, **Hanjia Lyu**, and Jiebo Luo. Look behind the Censorship: Reposting-User Characterization and Muted-Topic Restoration. International Workshop on Social Sensing (SocialSens): Special Edition on Belief Dynamics, *AAAI International Conference on Web and Social Media (ICWSM)*, Atlanta, Georgia and online, June 2022.
- Wei Zhu, Zihe Zheng, Haitian Zheng, **Hanjia Lyu**, and Jiebo Luo. Learning to Aggregate and Refine Noisy Labels for Visual Sentiment Analysis. *International Conference on Pattern Recognition (ICPR)*, Montréal, August 2022.
- Xiaofei Zhou, Jingwan Tang, Beilei Guo, **Hanjia Lyu**, and Zhen Bai. Challenges and Design Opportunities in Data Analysis for ML-Empowered Scientific Inquiry – Insights from a Teacher Professional Development Study. *International Conference of the Learning Sciences (ICLS)*, Virtual, June 2022.
- Tanqiu Jiang, Sidhant Bendre, **Hanjia Lyu**, and Jiebo Luo. From Static to Dynamic Prediction: Wildfire Risk Assessment Based on Multiple Environmental Factors. *Special Session on Intelligent Data Mining, IEEE Big Data Conference*, Virtual, December 2021.
- Xupin Zhang, **Hanjia Lyu**, and Jiebo Luo. Understanding the Hoarding Behaviors during the COVID-19 Pandemic using Large Scale Social Media Data. *Special Session on Intelligent Data Mining, IEEE Big Data Conference*, Virtual, December 2021.
- Long Chen, **Hanjia Lyu**, Tongyu Yang, Yu Wang, and Jiebo Luo. Fine-Grained Analysis of the Use of Neutral and Controversial Terms for COVID-19 on Social Media. *International Conference on Social Computing, Behavioral-Cultural Modeling & Prediction and Behavior Representation in Modeling and Simulation (SBP-BRiMS)*, Virtual, July 2021.
- Karan Vombatkere, **Hanjia Lyu**, and Jiebo Luo. How Political is the Spread of COVID-19 in the United States? An Analysis using Transportation and Weather Data. *International Conference on Social Computing, Behavioral-Cultural Modeling & Prediction and Behavior Representation in Modeling and Simulation (SBP-BRiMS)*, Virtual, July 2021.

#### Research Experience

- **Wyze Labs**, Kirkland, WA. Spring 2022. Worked with Dr. Mohammad Mahdi Kamani, Dr. Zhongwei Cheng, and Dr. Lin Chen on recommender systems for trigger-action rules of smart home devices using heterogeneous graph neural networks.
- **Public Health Sciences**, University of Rochester Medical Center, Rochester, NY. Summer 2021. Worked with Prof. Yu Liu on conducting characterization and linguistic analysis regarding the LGBT community, PrEP, and HIV test using social media data.

#### Teaching Experience

- Teaching assistant for graduate Machine Learning (CSC 446) with Prof. Daniel Gildea. Spring semester 2022, University of Rochester
- Teaching assistant for graduate Data Mining (CSC/DSC 440) with Prof. Jiebo Luo. Fall semester 2021, University of Rochester
- Teaching assistant for graduate Data Mining (CSC/DSC 440) with Prof. jiebo Luo. Fall semester 2020, University of Rochester

#### Scientific Community Activities

- **Reviewer for journals:** Maternal and Child Health Journal, Telematics and Informatics, SAGE Open, International Journal of General Medicine, The Social Science Journal, IEEE Transactions on Computational Social Systems, Journal of Multidisciplinary Healthcare, BMC Public Health, IEEE Transactions on Knowledge and Data Engineering, IEEE Transactions on Multimedia, BMC Oral Health, BMC Medical Research Methodology, Journal of Computational Social Science, Frontiers in Psychology, Frontiers in Public Health
- **Reviewer for conferences:** ICWSM (21, 22), ICDM (21), TheWebConf (22), ISLS (22)
- **Talks**
  - Invited talk at *Experience Rochester*, Rochester, September 2020
  - Invited talk at *InsurTech Innovation: UK & China as Hotspots of the Global World*, Virtual, April 2022