

Xinyi Zhou

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RESEARCH INTEREST

Data Mining, Machine Learning, Natural Language Processing, Social Computing

PROFESSIONAL EXPERIENCE

University of Washington , Seattle, WA, USA <i>Postdoctoral Scholar</i> , Paul G. Allen School of Computer Science and Engineering <i>UW Data Science Postdoctoral Fellow</i> , eScience Institute	Jan. 2023 – Present
Syracuse University , Syracuse, NY, USA <i>Research Assistant</i> , Department of Electrical Engineering and Computer Science	Aug. 2017 – Dec. 2022
University of Southern California , Los Angeles, CA, USA <i>Research Intern</i> , Information Sciences Institute, Viterbi School of Engineering	May – Aug. 2020
Southwest University , Chongqing, China <i>Research Assistant</i> , College of Computer and Information Science	Sep. 2014 – June 2017

EDUCATION

Ph.D., Computer and Information Science and Engineering Syracuse University, Syracuse, NY, USA Thesis: <i>Algorithmic Solutions to Combat Online Fake News</i> Committee: Reza Zafarani (advisor), Pramod Varshney, Vir Phoha, Chilukuri Mohan, Cliff Davidson	Dec. 2022
B.Eng., Computer Science and Technology Southwest University, Chongqing, China	June 2017

AWARDS & HONORS

Data Science Postdoctoral Fellow, University of Washington	Sep. 2022
SICSS Travel Grant, University of Pennsylvania	Apr. 2022
Research Excellence Doctoral Fellowship, Syracuse University (\$10,000)	Jan. 2022
ICWSM Scholarship	May 2021
SIGIR Student Travel Grant	Sep. 2020
GSO Travel Grant, Syracuse University	Nov. 2018, May 2020
Varshney Graduate Scholarship, Syracuse University (sole recipient)	Dec. 2019
SoBigData Transnational Access Grant	Dec. 2018
The 100 Most Influential Research Papers of 2017 in China	Nov. 2018
Yuhui Scholarship, Southwest University (7/535)	Apr. 2017
China National Scholarship	Oct. 2016

PUBLICATIONS



Summary: 12 first-author / 17 peer-reviewed publications in journals, including *CSUR* (IF: 14.324), and conferences, including *TheWebConf/WWW*, *WSDM*, *CIKM*, *PAKDD*, and *ICWSM*

Citations: 2400+, h-index: 15, i100-index: 10

Conference Papers

- [c.7] **Xinyi Zhou**, Kai Shu, Vir V. Phoha, Huan Liu, and Reza Zafarani. 2022. “This is Fake! Shared It by Mistake”: Assessing the Intent of Fake News Spreaders. In *Proceedings of the ACM Web Conference (TheWebConf/WWW)*. 3685–3694.
- [c.6] **Xinyi Zhou**, Apurva Mulay, Emilio Ferrara, and Reza Zafarani. 2020. ReCOVeRY: A Multimodal Repository for COVID-19 News Credibility Research. In *Proceedings of the 29th ACM International Conference on Information and Knowledge Management (CIKM)*. 3205–3212.
- [c.5] **Xinyi Zhou***, Jindi Wu*, and Reza Zafarani. 2020. SAFE: Similarity-aware Multimodal Fake News Detection. In *Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*. Springer, 354–367. (*equal contribution)
- [c.4] **Xinyi Zhou**, Shengmin Jin, and Reza Zafarani. 2020. Sentiment Paradoxes in Social Networks: Why Your Friends Are More Positive Than You?. In *Proceedings of the International AAAI Conference on Web and Social Media (ICWSM)*, Vol. 14. 798–807.
- [c.3] Reza Zafarani, **Xinyi Zhou**, Kai Shu, and Huan Liu. 2019. Fake News Research: Theories, Detection Strategies, and Open Problems. In *Proceedings of the 25th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*. 3207–3208.
Featured in [Datanami](#) and [Qiita](#)
- [c.2] **Xinyi Zhou**, Reza Zafarani, Kai Shu, and Huan Liu. 2019. Fake News: Fundamental Theories, Detection Strategies and Challenges. In *Proceedings of the 12th ACM International Conference on Web Search and Data Mining (WSDM)*. 836–837.
Featured in [Psychology Today](#)
- [c.1] Kai Shu, **Xinyi Zhou**, Suhang Wang, Reza Zafarani, and Huan Liu. 2019. The Role of User Profiles for Fake News Detection. In *Proceedings of the 2019 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM)*. 436–439.

Journal Articles

- [j.8] Chen Yang, **Xinyi Zhou**, and Reza Zafarani. 2021. CHECKED: Chinese COVID-19 fake news dataset. *Social Network Analysis and Mining (SNAM)* 11, 1, 1–8.
- [j.7] **Xinyi Zhou** and Reza Zafarani. 2020. A Survey of Fake News: Fundamental Theories, Detection Methods, and Opportunities. *ACM Computing Surveys (CSUR)* 53, 5, 1–40.
 ESI Top 1% Highly Cited Papers (as of July/Aug. 2022)
Included in [Stanford CS384](#) and [CMU 11-865/11-665](#)
Featured in [The Data Exchange](#)
- [j.6] **Xinyi Zhou**, Atishay Jain, Vir V Phoha, and Reza Zafarani. 2020. Fake News Early Detection: A Theory-driven Model. *ACM Digital Threats: Research and Practice (DTRAP)* 1, 2, 1–25.
 [The Most Downloaded and Cited Article](#) in DTRAP (as of Dec. 2022)
Featured in [ACM’s AI/ML showcase](#)

- [j.5] **Xinyi Zhou** and Reza Zafarani. 2019. Network-based Fake News Detection: A Pattern-driven Approach. *ACM SIGKDD Explorations Newsletter* 21, 2, 48–60.
- [j.4] **Xinyi Zhou**, Yong Hu, Yong Deng, Felix TS Chan, and Alessio Ishizaka. 2018. A DEMATEL-based completion method for incomplete pairwise comparison matrix in AHP. *Annals of Operations Research* 271, 2, 1045–1066.
- [j.3] **Xinyi Zhou**, Yangqiuyan Shi, Xinyang Deng, and Yong Deng. 2017. D-DEMATEL: A new method to identify critical success factors in emergency management. *Safety Science* 91, 93–104.
- 🏆 [The 100 Most Influential Research Papers of 2017 in China](#)
- [j.2] Luyuan Chen, **Xinyi Zhou**, Fuyuan Xiao, Yong Deng, and Sankaran Mahadevan. 2017. Evidential analytic hierarchy process dependence assessment methodology in human reliability analysis. *Nuclear Engineering and Technology* 49, 1, 123–133.
- [j.1] **Xinyi Zhou**, Xinyang Deng, Yong Deng, and Sankaran Mahadevan. 2017. Dependence assessment in human reliability analysis based on D numbers and AHP. *Nuclear Engineering and Design* 313, 243–252.

Book Chapters

- [b.1] Niraj Sitaula, Chilukuri K Mohan, Jennifer Grygiel, **Xinyi Zhou**, and Reza Zafarani. 2020. Credibility-based fake news detection. In *Disinformation, Misinformation, and Fake News in Social Media*. Springer, 163–182.

Workshop Papers

- [w.1] **Xinyi Zhou** and Reza Zafarani. 2019. Fake News Detection: An Interdisciplinary Study. In *Companion Proceedings of the World Wide Web Conference*. 1292–1292.

Preprints

- [p.2] **Xinyi Zhou**, Jiayu Li, Qinzhou Li, and Reza Zafarani. 2022. Linguistic-style-aware Neural Networks for Fake News Detection. *arXiv preprint arXiv:2301.02792*.
- [p.1] **Xinyi Zhou**, Reza Zafarani, and Emilio Ferrara. 2022. From Fake News to #FakeNews: Mining Direct and Indirect Relationships among Hashtags for Fake News Detection. *arXiv preprint arXiv:2211.11113*.

PROFESSIONAL PRESENTATIONS

Syracuse University EECS PhD Colloquium , Syracuse, NY, USA	Nov. 2022
Oral: Algorithmic Solutions to Combat Online Fake News	
SICSS@University of Pennsylvania , Philadelphia, PA, USA	June 2022
Oral: Writing-style-aware Neural Networks to Predict “Fake News”	
TheWebConf/WWW 2022 , Online	Apr. 2022
Oral: “This is Fake! Shared It by Mistake”: Assessing the Intent of Fake News Spreaders	
Syracuse University ECS Research Day , Syracuse, NY, USA	Mar. 2022
Oral and poster: “This is Fake! Shared It by Mistake”: Assessing the Intent of Fake News Spreaders	
The Data Exchange Podcast , Online	Nov. 2020
Invited talk: Detecting Fake News	

Syracuse University ECS Research Day , Online Poster: SAFE: Similarity-aware Multimodal Fake News Detection	Nov. 2020
CIKM 2020 , Online Oral: ReCOVary: A Multimodal Repository for COVID-19 News Credibility Research	Oct. 2020
PAKDD 2020 , Online Oral: SAFE: Similarity-aware Multimodal Fake News Detection	May 2020
KDD 2019 , Anchorage, AK, USA. Tutorial: Fake News Research: Theories, Detection Strategies, and Open Problems (with Reza Zafarani and Kai Shu)	Aug. 2019
Third Workshop on Women in Web Data Science@WWW , San Francisco, CA, USA Oral: Fake News Detection: An Interdisciplinary Study	May 2019
WSDM 2019 , Melbourne, Australia. Tutorial: Fake News: Fundamental Theories, Detection Strategies and Challenges (with Reza Zafarani and Huan Liu)	Feb. 2019

MENTORING EXPERIENCE

Graduate Students

Atul Anand Gopalakrishnan, Syracuse Univ.	Sep. 2022 – Present
Qinzhou Li, Syracuse Univ. (now at Google) [p.2]	June 2020 – Nov. 2021
Xin Chen, Syracuse Univ.	June – Sep. 2021
Apurva Shriniwas Mulay, Syracuse Univ. (now at Mediaocean) [c.6]	Mar. – June 2020
Jindi Wu, Syracuse Univ. (now Ph.D. student at William & Mary) [c.5]	Jan. 2019 – Apr. 2020
Atishay Jain, Syracuse Univ. (now at IPSY) [j.6]	Dec. 2018 – Dec. 2019

Undergraduate Students

Xuanhao Luo, intern at Syracuse Univ. (now Ph.D. student at NC State Univ.)	May – Aug. 2022
Tysean Canada, Syracuse Univ. (NSF LSAMP program)	June – Aug. 2021
Chen Yang, Syracuse Univ. (now at USC) [j.8]	June 2019 – June 2021
Ritwik Takkar, Syracuse Univ. (now Ph.D. student at Cornell Univ.)	Sep. 2020 – Feb. 2021

High School Students

Haiyang “Stone” Chen, Berkshire School (AMSR program)	Oct. 2022 – Present
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TEACHING EXPERIENCE

Syracuse University, Syracuse, NY, USA

<i>Teaching Assistant</i> , CIS 352 - Programming Language: Theory & Practice	Spring 2021
<i>Teaching Assistant</i> , CIS 675 - Design and Analysis of Algorithms	Fall 2020
<i>Teaching Assistant</i> , CIS 675 - Design and Analysis of Algorithms	Spring 2020
<i>Teaching Assistant</i> , CIS 675 - Design and Analysis of Algorithms	Fall 2019

PROFESSIONAL TRAINING

Summer Institute in Computational Social Science, University of Pennsylvania

June 2022

PROFESSIONAL SERVICES

Journal Reviewer

CSUR: ACM Computing Surveys
 DTRAP: ACM Digital Threats: Research and Practice
 KAIS: Knowledge and Information Systems
 TALLIP: ACM Transactions on Asian and Low-Resource Language Information Processing
 TCSS: IEEE Transactions on Computational Social Systems
 TETCI: IEEE Transactions on Emerging Topics in Computational Intelligence
 TIFS: IEEE Transactions on Information Forensics and Security
 TKDE: IEEE Transactions on Knowledge and Data Engineering
 TMM: IEEE Transactions on Multimedia
 TNNLS: IEEE Transactions on Neural Networks and Learning Systems
 TOIS: ACM Transactions on Information Systems
 TOMM: ACM Transactions on Multimedia Computing, Communications, and Applications
 TWEB: ACM Transactions on the Web
 Applied Soft Computing
 Engineering Applications of Artificial Intelligence
 Information Processing and Management
 Neurocomputing
 OMEGA – The International Journal of Management Science
 Social Network Analysis and Mining

Program Committee Member

KDD:	ACM SIGKDD Intl. Conference on Knowledge Discovery & Data Mining	2022-2023
AAAI:	AAAI Conference on Artificial Intelligence	2023
SIGIR:	ACM SIGIR Intl. Conf. on Research & Development in Information Retrieval	2021-2022
WSDM:	ACM Intl. Conference on Web Search & Data Mining	2022
CIKM:	ACM Intl. Conference on Information & Knowledge Management	2020-2022
CHIIR:	ACM SIGIR Conference on Human Information Interaction & Retrieval	2022
ASONAM:	IEEE/ACM Intl. Conference on Advances in Social Networks Analysis & Mining	2021-2022
ECIR:	European Conference on Information Retrieval	2021
CogMI:	IEEE Intl. Conference on Cognitive Machine Intelligence	2021

MEDIA COVERAGE

Kudos Research Showcase: New machine learning model for fake news early detection. 8 Sep. 2022.

Syracuse University News: Electrical Engineering and Computer Science Student Xinyi Zhou Selected as First Recipient of the Pramod K. and Anju Varshney Endowed Graduate Scholarship. 21 Jan. 2020.

Datanami: AI Squares Off Against Fake News. 2 Sep. 2019.

Psychology Today: What is Fake News? Is Debate Worth the Effort?. 19 Feb. 2019.