Ruyuan Wan

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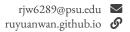## RESEARCH INTERESTS

Human-Computer Interaction (HCI) · Natural Language Processing (NLP) · Social Computing

EDUCATION

2024 - 2028 Exp.	**Pennsylvania State University**, State College, PA Ph.D. Student in Computer Science Advisor: Ting-Hao (Kenneth) Huang
2022 - 2024	**University of Notre Dame**, South Bend, IN M.S. Computer Science and Engineering
2016 - 2022	**University of Minnesota**, Minneapolis, MN M.A. in Linguistics & M.S. in Data Science B.A. in Statistics

AWARDS & HONORS

2024	Pennsylvania State University Jordan Rednor Award ($3000)
2023 - 2024	University of Notre Dame Lucy Graduate Scholar ($3000)
2023	AAAI-23 Student Scholarship ($1000)
2021	University of Minnesota Fellowship from the Institution of Linguistics ($2000)
2020	Outstanding Poster at ACM - Computer Supported Cooperative Work (CSCW)
2016 – 2018	University of Minnesota Culture Corps Award ($500)
2018	University of Minnesota Linh's Undergrad Internship Award ($2000)
2016	University of Minnesota Dean's List Award

PEER-REVIEWED CONFERENCE PAPERS

C.4 **Hashtag Re-appropriation For Audience Control on Recommendation-driven Social Media Xiaohongshu**
Ruyuan Wan, Lingbo Tong, Tiffany Knearem, Toby Jia-Jun Li, Ting-Hao Kenneth Huang, Qunfang Wu
Under Submission

C.3 **CoCoLoFa: A Dataset of News Comments with Common Logical Fallacies Written by LLM-Assisted Crowds**
Min-Hsuan Yeh, **Ruyuan Wan**, Ting-Hao Kenneth Huang
Proceedings of Conference on Empirical Methods in Natural Language Processing (EMNLP 2024)

C.2 **Tricky vs. Transparent: Towards an Ecologically Valid and Safe Approach for Evaluating Online**
Zainab Agha, Jinkyung Park, **Ruyuan Wan**, Naima Samreen Ali, Yiwei Wang, Dominic Difranzo, Karla Badillo-Urquiola, Pamela J. Wisniewski
Proceedings of Conference on Human Factors in Computing Systems (CHI 2024)

P.1 **Everyone's Voice Matters: Quantifying Annotation Disagreement Using Demographic Information**
Ruyuan Wan, Jaehyung Kim, Dongyeop Kang
Proceedings of the Annual AAAI Conference on Artificial Intelligence (AAAI 2023)

PEER-REVIEWED POSTERS, WORKSHOP PAPERS

P.5 **CoCo Matrix: Taxonomy of Cognitive Contributions in Co-writing with Intelligent Agents**
Ruyuan Wan, Simret Gebreegziabher, Toby Jia-Jun Li, Karla Badillo-Urquiola
Companion Publication of the Proceedings of the 16th ACM Conference on Creativity and Cognition (C&C 2024)

P.4 **Leveraging the Strengths of Qualitative Analysis to Improve Data Annotation**
Ruyuan Wan, Jie Gao
CHI 2024 Workshop on Large Language Models as Research Tools

P.3 **Annotation Imputation to Individualize Predictions: Initial Studies on Distribution Dynamics and Model Predictions**
London Lowmanstone, **Ruyuan Wan**, Risako Owan, Jaehyung Kim, Dongyeop Kang
Proceedings of the Second Workshop on Perspectivist Approaches to NLP, ECAI 2023

P.2 **User or Labor: An Interaction Framework for Human-Machine Relationships in NLP**
Ruyuan Wan, Naome Etori, Karla Badillo-Urquiola, Dongyeop Kang
Proceedings of the Third Workshop on Data Science with Human in the Loop: Language Advances, EMNLP 2022

🏅 P.1 **How much is a "like" worth? Engagement and Retention in an Online Health Community**
Ruyuan Wan, Zachary Levonian, and Svetlana Yarosh
Companion Publication of the Proceedings of Conference on Computer Supported Cooperative Work and Social Computing (CSCW 2020). Outstanding Poster Recognition

INDUSTRY EXPERIENCE

Oct 2021 – Jan 2022   **NLP Research Intern**, Samsung Research America Inc. Mountain View, CA, US
Reviewed academic papers, reproduced baseline models, and developed a state-of-the-art coreference resolution model for long dialogues.

July 2021 – Sept 2021   **Data Science Intern**, Tencent. Shenzhen, China
Processed data using SQL and Spark, applied XGBoost for churn rate prediction, and developed a BERT-based recommendation system integrating users' sequential behavior and social networks.

June 2020 – Aug 2020   **Data Science Intern**, Ecolab. Eagan, MN, US
Built an end-to-end ML pipeline with Microsoft Azure and developed LSTM models for inventory usage forecasting, improving prediction accuracy by 10%.

July 2019 – Aug 2019   **Data Science Intern**, Michael J Fox Foundation for Parkinson's Research. Manhattan, NY, US
Conducted statistical analysis and survival analysis in R to uncover patterns among study participants and provided recommendations for improving study participation.

TEACHING EXPERIENCE

2024 SP, 2023 SP	**CSE 40175 Ethical and Professional Issues**, University of Notre Dame
2023 FA	**CSE 10101 Elements of Computing**, University of Notre Dame
2022 FA	**CSE 20110 Discrete Mathematics**, University of Notre Dame
2021 SP	**MSBA 6420 Predictive Analytics**, University of Minnesota
2020 SP	**CSCI 5521 Introduction to Machine Learning**, University of Minnesota
2021 SP, 2020 FA, 2019 SP, 2019 FA, 2018 FA	**CSCI 2011 Discrete Mathematics**, University of Minnesota
2018 SP	**STAT 3011 Introduction to Statistical Analysis**, University of Minnesota

SERVICE

Associate Chair	CSCW 2024 Paper Track, CSCW 2023 Poster Track
Committee Member	The Seventh Workshop on Online Abuse and Harms at ACL 2023
	The Second Workshop on Intelligent and Interactive Writing Assistants at CHI 2023
Workshop Organizer	NeurIPS 2024 Workshop on Pluralistic Alignment
	CSCW 2023 Workshop on Community-driven AI
Session Chair	CHI 2024 Session on Politics of Datasets
Reviewer	LREC-COLING 2024, ICLR 2024, IJCAI 2024, ICML 2024, DIS 2024, ACL ARR 2024, C&C 2024
	AAAI 2024, FAccT 2023 – 2024, NeurIPS 2023, CSCW 2024, CHI 2022 – 2023
Student Volunteer	CHI 2023 – 2024, CSCW 2023, FAccT 2023, AAAI 2023, EMNLP 2022, ACL 2022
Research Mentor	ND CSE Undergrad Summer Enrichment Program 2024
Social Chair	Graduate Society of Women Engineers (SWE) 2023 – 2024
Committee Member	ND CSE DEI Committee, 2023 – 2024

MEDIA COVERAGE

M.1 **Image Synthesis Has an SEO Problem**
Metaphysic Blog, Martin Anderson, January 24, 2023

M.2 **M.S. student receives Outstanding Poster recognition at CSCW 2020**
UMN CSE News, Crystal King, November 3, 2020

GRANTS

November 2023	WiNLP Workshop at EMNLP Travel Grant ($500)
June 2023	ACM Travel Grant for FAccT 2023 ($450)
February 2023	Nanovic Institute For European Studies Graduate Grant ($2000)
2023 – 2024	CSE Career Development Grant ($750)
2023 – 2024	Writing Accountability Group Grant ($480)
2022 – 2024	Notebaert Professional Development Fund ($1500)
2022 – 2024	Graduate Student Government Conference Presentation Grant ($680)

SKILLS

Programming Languages: Python, R, SQL, JavaScript, HTML, and others

NLP, Machine Learning, and Statistics: GPT, Hugging Face, TensorFlow, PyTorch, Spacy, Gensim, NLTK, BERT-based models, transformer models, classification, clustering, regression, hypothesis testing, Bayesian analysis, data visualization, and more

Qualitative Analysis: Thematic analysis, grounded theory, interviews, formative study, persona analysis, participatory design, and more

Interface Design, Prototyping, & Development: Figma, Photoshop, Sketch, storyboarding, React, and more