Ruotong Wang

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Research Interests

Remote collaboration; Human-AI Interaction; Responsible AI; Cross-cultural Studies

Education

2020–present **University of Washington**, *Seattle, Washington*,
Ph.D. in Computer Science and Engineering,
Advisor: Amy X. Zhang.
Courses: CSE 517: Natural Language Processing, CSE 599 Social and Collaborative Computing, HCDE 548: Feminist Theory, CSE 599 Interactive Data Analysis Systems

2015–2019 **Macalester College**, *St.Paul, Minnesota*,
B.A. in Sociology (honor) and Mathematics, minor in Computer Science,
Cum Laude and *Phi Beta Kappa*.

Publications

Conference Papers

[C.4] Ye Yuan, Jan Cao, **Ruotong Wang**, Svetlana Yarosh. Tabletop Games in the Age of Remote Collaboration: Design Opportunities for a Socially Connected Game Experience. In *Proceedings of the ACM Conference on Human Factors in Computing Systems*. **(CHI 2021)**. **Best Paper Honorable Mention**

[C.3] Adriana Alvarado Garcia*, Juan F. Maestre*, Dr Manuhuia Barcham Archetekt*, Marilyn Iriarte*, Marisol Wong-Villacres*, Oscar A Lemus*, Palak Dudani*, Pedro Reynolds-Cuéllar*, **Ruotong Wang***, Teresa Cerratto*. Decolonial Pathways: Our Manifesto for a Decolonizing Agenda in HCI Research and Design. In *Proceedings of the ACM Conference on Human Factors in Computing Systems*. **(alt.chi 2021)**.

[C.2] **Ruotong Wang**, F. Maxwell Harper, Haiyi Zhu. Factors Influencing Perceived Fairness in Algorithmic Decision-Making: Algorithm Outcomes, Development Procedures, and Individual Differences. In *Proceedings of the ACM Conference on Human Factors in Computing Systems*. **(CHI 2020)**.

[C.1] Hao-Fei Cheng, **Ruotong Wang**, Zheng Zhang, Fiona O'Connell, Terrance Gray, F. Maxwell Harper, Haiyi Zhu. Explaining Decision-Making Algorithms through UI: Strategies to Help Non-Expert Stakeholders. In *Proceedings of the ACM Conference on Human Factors in Computing Systems*. **(CHI 2019)**.

Manuscripts

[I.1] Sarah McRoberts, Josh Wissbroecker, **Ruotong Wang**, F. Maxwell Harper. Exploring Interactions with Voice-Controlled TV. *Pre-submission to Arxiv.* https://arxiv.org/abs/1905.05851

Workshop Position Papers

[W.4] **Ruotong Wang**, Justin Cranshaw, Amy Zhang. Connecting Conversations through Human-AI Collaboration in Hybrid-Remote Workplaces. In *Human-Machine Partnerships in the Future of Work: Exploring the Role of Emerging Technologies in Future Workplaces at the ACM Conference on Computer Supported Cooperative Work and Social Computing*. **(CSCW 2021)**.

[W.3] **Ruotong Wang**. Rethinking Cross-cultural HCI Research from a Decolonial Perspective. In *Decolonizing Learning Spaces for Sociotechnical Research and Design Workshop at the ACM Conference on Computer Supported Cooperative Work and Social Computing*. **(CSCW 2020)**.

[W.2] **Ruotong Wang**, F. Maxwell Harper, Haiyi Zhu. How Self-Interest Affects Perceived Fairness of Algorithmic Decision Making. In *Participation+Algorithms Workshop at the ACM Conference on Computer Supported Cooperative Work and Social Computing*. **(CSCW 2019)**.

[W.1] **Ruotong Wang**. Uber Effort: The Production of Workers' Consent in Online Ride Sharing Platforms. In *Undergraduate Roundtable at the 2019 Midwest Sociological Society Annual Meeting*.

Honors and Awards

05/2021 CHI Best Paper Honorable Mention

10/2020 Paul G. Allen First-Year Graduate Student Fellowship

04/2019 Macalester Berry-Rinder-Swain Prize in Sociology

04/2019 Minnesota Student Employee of the Year by the National Student Employment Association

04/2019 Macalester Student Employee of the Year (as a program assistant of international student office)

09/2018 Alpha Kappa Delta International Sociology Honor Society

Research Experience

06/2021–09/2021 **Research Intern**, *Microsoft Research*,
advised by Dr. Mihaela Vorvoreanu.

Project: Towards developing a Maturity Model for Responsible AI.

- Conducted and analyzed 40+ interviews; Produced preliminary results that laid a foundation for Responsible AI maturity model, which could help advance the practice of Responsible AI industry-wide.

07/2020–present **Graduate Researcher**, *University of Washington*,
advised by Prof. Amy X. Zhang.

Project 1: Challenges and Opportunities of Cross-cultural Research in HCI. Outcome: [W.3]

- Perform a systematic literature review on cross-cultural HCI research and conduct interviews with expert scholars with a goal of identifying the opportunities and challenges of cross-cultural research in HCI.

Project 2: Interactive Tools to Connect Synchronous and Asynchronous Participation. Outcome: [W.4]

- Study how participants capture, curate and retrieve information for team meetings. Design and implement interactive tools to bridge synchronous and asynchronous modes of meeting participation in small team meetings.

Project 3: Team-in-the-loop Interactive Literature Review

- Design and implement tools to support teams to manage conversation on research papers.

09/2019–06/2020 **Research Assistant**, *Carnegie Mellon University*,
advised by Dr. Haiyi Zhu, Dr. Kai-Wei Chang (UCLA) and Dr. Steven Wu.

Project: Detecting and correcting implicit linguistic bias in Wikipedia biographies.

- Conducted literature review and interviews to identify research questions and scope the research project
- Wrote python scripts to parse and clean text and structured data in Wikipedia (40GB) and Wikidata datasets
- Built machine learning models (logistic, svm) to identify implicit linguistic bias in Wikipedia biography content

05/2018–08/2019 **Research Assistant**, *University of Minnesota–Twin Cities*,
advised by Dr. Haiyi Zhu and Dr. Max Harper.

Project 1: Perceived fairness of algorithmic decision-making. Outcome: [I.1], [W.2]

- Designed online experiments to study the perception of algorithm fairness in automated decision-making
- Implemented experiments and collected data using Qualtrics and Amazon Mechanical Turk
- Cleaned raw experiment data, specified regression models and visualized the results in R

Project 2: Explaining Decision-Making Algorithms through UI. Outcome: [C.1]

- Developed visualization web apps to explain decisiom-making algorithms, using Balsamiq, CSS, JavaScript
- Designed an online experiment and conducted interviews to evaluate the visualizations

Project 3: Evaluation of a voice-controlled recommender system. Outcome: [I.2]

- Transcribed interview data and performed analysis of the transcripts using open coding and affinity mapping.

09/2018–05/2019 **Sociology Honor Thesis**, *Macalester College*,
advised by Dr. Erik Larson and Dr. Erika Busse-Cardenas.

- Designed and performed an interview study to understand the role of management algorithms in drivers' work experience in ridesharing platforms, *outcome: [W.1]*

05/2017–12/2017 **The Social, Spatial and Dynamic Analysis Lab**, *University of Minnesota–Twin Cities*, advised by Dr. Zack W. Almquist and Dr. Benjamin Bagozzi.

- Built a 2800-observation transcribed text dataset to test the accuracy and efficiency of topic modeling algorithms
- Created R scripts to clean text data, perform descriptive analysis and implement topic modeling algorithms

Teaching Experience

University of Washington

Fall 2021 Teaching Assistant, CSE 440: Introduction To HCI: User Interface Design, Prototyping, And Evaluation

Macalester College

Spring 2019 Teaching Assistant, COMP/MATH 479: Network Science

Service

Student Volunteer: CSCW 2020

Reviewer: CSCW 2020, CHI 2021, DIS 2021, ICWSM 2022, CSCW 2022, CHI 2022, New Media & Society

Departmental @ UW: Women's Research Day Volunteer 2021, Prospective Student Committee Chair 2021, CSE PhD Pre-Application Review Service (PARS) Organizer & Mentor 2020, 2021

Technical Skills

Research	Interview (in-person and remote), Survey, Participant Observation, Usability testing, Statistical modeling & analysis, Experimental design
Data Analysis	Python (scikit-learn, spaCy, NumPy, pandas), R (dplyr, ggplot2), SQL, SPSS
Development	JavaScript, React, HTML/CSS, Java