

## Research Interests

Human-computer interaction; Online Communities; Remote collaboration; Cross-cultural; Future of work

## Education

2020–present **University of Washington, Seattle, Washington,**  
Ph.D. in Computer Science and Engineering,  
Advisor: Amy X. Zhang.

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

## Research Experience

- 07/2020–present **Paul G. Allen School of Computer Science, University of Washington,**  
advised by Prof. Katharina Reinecke and 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: Current Use and Future Design of Tools to Support Collaborative Note-taking in Synchronous Remote Discussion*
  - Conduct interviews to study the use of collaborative writing tools in remote collaboration and identify design opportunities.
- 09/2019–06/2020 **Human Computer Interaction Institute, 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 **GroupLens Social Computing Lab, 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 decision-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– **The Social, Spatial and Dynamic Analysis Lab**, *University of Minnesota–Twin Cities*,  
12/2017 advised by Dr. Zack W. Almquist and Dr. Benjamin Bagozzi.
- o Built a 2800-observation transcribed text dataset to test the accuracy and efficiency of topic modeling algorithms
  - o Created R scripts to clean text data, perform descriptive analysis and implement topic modeling algorithms

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## 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**).
- [C.3] Adriana Alvarado Garcia\*, Juan F. Maestre\*, Dr Manuhia Barcham Archetekt\*, Marilyn Iriarte\*, Marisol Wong-Villacres\*, Oscar A Lemus\*, Palak Dudani\*, Pedro Reynolds-Cuellar\*, **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.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*.

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## Honors and Awards

- 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

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## Service

**Student Volunteer:** CSCW 2020

**Reviewer:** CSCW 2020, CHI 2021, DIS 2021

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

## Technical Skills

Research Interview, Participant Observation, Online Experiment Design and Implementation  
Data Analysis Python (scikit-learn, spaCy, NumPy, pandas), R (dplyr, ggplot2), SQL, SPSS  
Development HTML/CSS, JavaScript, React, Java