

LEIJIE WANG

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EDUCATION

Tsinghua University, Department of Computer Science and Technology

Beijing, China

Candidate for Bachelor of Engineering

09/2017 – 07/2022

- GPA: 3.89/4.00; Ranked 6/225 in the Department of Computer Science and Technology
- Ranked 1st among 300,000 students on the National College Entrance Examination
- Courses: Calculus A I/II (A/A-), Linear Algebra I/II (A+/A), Discrete Mathematics I/II (A/A), Probability and Statistics (A), Data Structure (A), Introduction to Artificial Intelligence (A-), Computer Architecture (A-)

New College, Oxford University

Oxford, United Kingdom

Visiting Student in Computer and Philosophy

10/2019 – 06/2020

- GPA: 4.00/4.00; Admitted with full scholarship
- Courses: Ethics (A-), Practical Ethics (A-), General Philosophy (A-), Philosophical Logic (A), Computer Architecture (A), Compilers (A), Numerical Analysis (A-)

RESEARCH INTERESTS

Social Computing; Human-centered Machine Learning; Fairness, Accountability, and Transparency; Participatory Design; Human-AI Collaboration

PUBLICATIONS

Leijie Wang, Steven Wu, Haiyi Zhu. How Are Machine Learning Based Online Content Moderation Systems Actually Used? Studying Community Size, Local Activity, and Disparity Treatment. *Under Review for The ACM CHI Conference on Human Factors in Computing Systems (CHI'22)*

RESEARCH EXPERIENCE

Data Interaction Group (DIG), Carnegie Mellon University

Pittsburgh, USA

Supervisors: Adam Perer and Dominik Moritz

06/2021 – Present

Project: Visualization Recommendation with Analysis History

- Aimed to recommend graphs to users by tracking the history of their analysis to facilitate data exploration
- Enhanced the recommendation system to make recommended graphs more informative and robust; Tracked the history of all commonly used Pandas functions and created new visualizations for these functions; Implemented unit tests to facilitate the system maintenance
- Created a user study procedure that asks participants to perform exploratory data analysis by using our tool and evaluate its performance

Social AI Group, Carnegie Mellon University

Pittsburgh, USA

Supervisors: Haiyi Zhu and Steven Wu

06/2020 – Present

Project 1: Facilitating Public Deliberation of Algorithmic Decisions

- Aimed to help Wikipedia members address their competing values about a moderation algorithm through organized deliberation sessions. More details are available on the [project wiki page](#)
- Designed [an interactive interface](#) to help Wikipedians better understand tensions among values of different stakeholders, select their preferred model, and share that model with others for further discussion; Currently running interviews and deliberation sessions in English and Dutch-speaking Wikipedia communities

Project 2: Exploring the Effect of Algorithmic Flagging Systems on Fairness

- Aimed to understand how community norms influence the actual effect of content moderation algorithms; Provided a field evaluation of an ML-based algorithm in the socio-technical context of Wikipedia;
- Constructed a dataset from Wikipedia archives and exploited a causal inference method to identify several socio-technical factors that influence the actual use of algorithms in various communities, namely membership size and local edit activity

Project 3: Incorporation of Fair Algorithms into the Python Toolkit of Fair Algorithms

- Aimed to reduce difficulties non-experts experience in accessing, understanding, and deploying algorithms with fairness guarantees
- Implemented the fair regression algorithm proposed in the paper [Agarwal et al.](#) and helped organize separate fair algorithms into a structured toolkit; Wrote API documentations and unit tests to increase accessibility

Project: Exploring Recommendation Algorithms Based on Networking Embedding Theories

- Aimed to improve recommendation algorithms for WeChat's Top Stories feature
- Cleansed data and implemented several recommendation algorithms from prior research to further our understanding of the large dataset

SELECTED AWARDS AND HONORS

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| • Tsinghua Presidential Scholarship, Tsinghua University | 2020 |
| <i>Highest undergraduate scholarship</i> awarded by Tsinghua University; Top 10 out of 3000+ undergraduates | |
| • Finalist Award in the Mathematical Contest in Modeling | 2020 |
| Awarded to top 1% of all teams | |
| • Yinghua Scholarship, Tsinghua University | 2019 |
| Full scholarship for one-year exchange program at University of Oxford, \$66,000 in total | |
| • Jiang Nanxiang Scholarship, Tsinghua University | 2019 |
| Awarded for overall excellence, top 1% of all students | |
| • The First Prize Scholarship for 2017 Freshmen, Tsinghua University | 2017 |
| Awarded for the highest score on the National College Entrance Examination out of 300,000 students | |

ADDITIONAL INFORMATION

Programming Skills

- Python, HTML/CSS/JavaScript, C/C++, Java, R, MATLAB, LaTeX

Languages

- Native in Mandarin; Fluent in English
- TOFEL 113 (Speaking 25, Writing 29); GRE 338 (V: 165, Q: 169, AW: 4.0)