

Robin Bowers

they/them

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October, 2024

EDUCATION

University of Colorado Boulder

PhD Student, Computer Science

Boulder, CO

2021 – present

Oberlin College

Bachelor of Arts, Computer Science and Mathematics

Oberlin, OH

2016 – 2020

University of Edinburgh

IFSA-Butler Study Abroad, course credits issued via Butler University

Edinburgh, UK

Spring 2019

PUBLICATIONS

Matching with Nested and Bundled Pandora Boxes.

Robin Bowers, Bo Waggoner, *Conference on Web and Internet Economics (WINE), 2024 (forthcoming).*

High-Welfare Matching Markets via Descending Price.

Robin Bowers, Bo Waggoner, *Conference on Web and Internet Economics (WINE), 2023.*

Loom Pedals: Retooling Jacquard Weaving for Improvisational Design Workflows.

Shanel Wu, Xavier A Corr, Xi Gao, Sasha De Koninck, Robin Bowers, Laura Devendorf, *Conference on Tangible and Embedded Interaction (TEI), 2024.*

Machine Learning Based MIMO Equalizer for High Frequency (HF) Communications.

S. Spillane, K. H. Jung, Bowers, T. Peken, M. H. Marefat and T. Bose, *2020 International Joint Conference on Neural Networks (IJCNN 2020).*

PROFESSIONAL ACTIVITIES & SERVICE

Co-Organizer – EC Gender Inclusion Workshop

2024

Workshop at Conference on Economics and Computation (EC'24)

New Haven, CT

- Co-organized second workshop on gender inclusion with Yeganeh Alimohammadi, Natalie Collina, Kate Donahue, Bailey Flanigan, and Maneesha Papireddygar
- Workshop included invited speakers, spotlight talks by graduate students, and discussion groups on issues of gender inclusion in the EC research community

Reviewer – EAAMO'24

2024

Conference on Equity and Access in Algorithms, Mechanisms, and Optimization 2024

San Luis Potosí, Mexico

Founder/Coordinator – CU Boulder Algorithmic Fairness Reading Group

Fall 2023 – present

University of Colorado Boulder

Boulder, CO

- Wrote a syllabus of papers for each semester, coordinated discussions of papers

Participant – SLMath Summer School

Summer 2023

SLMath

Berkeley, CA

- Participant in the summer school Mathematics and Computer Science of Market and Mechanism Design

Coordinator – Algorithmic Economics Reading Group

2022 – 2023

University of Colorado Boulder

Boulder, CO

- Planned and scheduled reading group meetings

CU Boulder Graduate Peer Mentor

2022 – present

University of Colorado Boulder

Boulder, CO

- Matched with incoming PhD and Master's students through both Graduate School and Computer Science Department mentorship programs
- Helped introduce students to research and the CU Boulder course system
- Helped international students adjust to Boulder

CU Boulder Graduate Prospective Student Mentor

University of Colorado Boulder

Fall 2022, 2023

Boulder, CO

- Matched to prospective students applying to graduate schools
- Provided feedback on application materials and guidance on CU Boulder's graduate program application process and expectations

AWARDS

Outstanding Service Award

University of Colorado Boulder, Computer Science Department

2024

Boulder, CO

Outstanding Teaching Assistant Award

University of Colorado Boulder, Computer Science Department

2022

Boulder, CO

Department Research Expo – Work In Progress Award

University of Colorado Boulder, Computer Science Department

2022

Boulder, CO

R.J. Thomas Computer Science Teaching Assistant Award

Oberlin College

May 2020

Oberlin, OH

John F. Oberlin Scholarship

Oberlin College

2016 – 2020

Oberlin, OH

TEACHING

Teaching Assistant – Graduate Algorithms

University of Colorado Boulder

Fall 2024

Boulder, CO

- Contributed to writing homework solutions and grading, held weekly office hours.

Teaching Assistant – Principles of Programming Languages

University of Colorado Boulder

Fall 2023

Boulder, CO

- Led weekly practice sessions on functional programming and programming language construction

Teaching Assistant – Algorithms

University of Colorado Boulder

Spring 2022

Boulder, CO

- Led weekly practice sessions on course topics
- Wrote weekly problem sets and solutions presented in all TA sections
- Received a departmental teaching assistant award for my contributions

Teaching Assistant – Algorithms

Oberlin College

2019 – 2020

Oberlin, OH

- Wrote worksheets for and led weekly practice sessions on course topics
- Transferred problem session material online for distance learning
- Received a departmental teaching assistant award for my contributions

Grader – Discrete Math

Oberlin College

Fall 2018, Spring 2020

Oberlin, OH

- Graded homework and quizzes weekly for class size of 30-80 students for in-person and distance learning classes
- Provided written feedback to students on mathematical reasoning and clarity

POSTERS & TALKS

Matching with Nested and Bundled Pandora Boxes

Robin Bowers, Bo Waggoner, Poster presented at ACM Conference on Economics and Computation (EC), 2024.

High-Welfare Matching Markets via Descending Price

Robin Bowers, Bo Waggoner, Poster presented at Marketplace Innovation Workshop, 2023; Simons Institute Workshop on Societal Considerations and Applications, 2022; ACM Conference on Economics and Computation, 2022. Talk presented at WINE 2023.

OTHER EXPERIENCE

Undergraduate Research Assistant

2019 – 2020

Oberlin College

Oberlin, OH

- Conducted research in economic game theory
- Proved setting-specific performance lower-bounds for several auction algorithms
- Obtained complexity results on computing lower bounds for performance of auctions in specific settings

Research Internship – NSF REU

Summer 2019

University of Arizona Department of Electrical and Computer Engineering

Tucson, AZ

- Conducted study on “Machine Learning Based MIMO Equalizer for High Frequency (HF) Communications”
- Created mathematical models of long-range radio systems in MATLAB
- Implemented machine-learning algorithms to dynamically adjust system behavior for best performance
- Communicated professionally with other students to coordinate project and goals

Software Internship

Summer 2018

Blendid

Sunnyvale, CA

- Worked with Universal Robots robotic arm designing and optimizing movement paths in automated food kiosk
- Handled emergency kiosk malfunctions and daily prototype operations