# Emma Harvey

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# Research Interests

Practical, interdisciplinary methods for assessing and improving the fairness of sociotechnical systems

#### EDUCATION

Cornell University

Aug. 2023 - present

PhD student in Information Science

Committee: Allison Koenecke (co-chair), Rene Kizilcec (co-chair), Karen Levy, Nikhil Garg

#### University of Pennsylvania

Aug. 2013 - Dec. 2017

BA in Computer Science and Philosophy, Politics, & Economics

## Honors and Awards

Best Paper Honorable Mention, ACM CHI for [P2]  $(top\ 5\%)$  2024 Honorable Mention, National Science Foundation Graduate Research Fellowship (NSF GRFP) 2024 Summa Cum Laude, University of Pennsylvania  $(GPA\ 3.84\ /\ 4.00)$  2017

### RESEARCH

# CONFERENCE AND JOURNAL PUBLICATIONS stringently peer-reviewed

- P4. Jinsook Lee\*, **Emma Harvey**\*, Joyce Zhou, Nikhil Garg, Thorsten Joachims, and Rene Kizilcec. Ending Affirmative Action Harms Diversity Without Improving Academic Merit. 2024. Forthcoming at the ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO'24). pdf.
- P3. Emma Harvey, Michelle Seng Ah Lee, and Jatinder Singh. *Improving Group Fairness Assessments with Proxies*. 2024. ACM Journal on Responsible Computing (ACM JRC). pdf.
- P2. Emma Harvey, Hauke Sandhaus, Abigail Z. Jacobs\*, Emanuel Moss\*, and Mona Sloane\*. 2024. The Cadaver in the Machine: The Social Practices of Measurement and Validation in Motion Capture Technology. ACM CHI Conference on Human Factors in Computing Systems (CHI'24). pdf. Best Paper Honorable Mention.
- P1. Sasha Costanza-Chock, **Emma Harvey**, Inioluwa Deborah Raji, Martha Czernuszenko, and Joy Buolamwini. 2022. Who Audits the Auditors? Recommendations from a field scan of the algorithmic auditing ecosystem. ACM Conference on Fairness, Accountability, and Transparency (FAccT'22). pdf.

# Workshop Publications and Presentations lightly peer-reviewed

- W4. Emma Harvey, Allison Koenecke, and Rene Kizilcec. Towards an Educator-Centered Method for Measuring Bias in Large Language Models. AAAI 2024 Workshop on AI for Education. presentation. pdf. Spotlight Presentation.
- W3. Elena Gray, **Emma Harvey**, Kevin Coltin, and Greg Szwartz. 2022. Creating a Covid-19 risk decision metric with an agent-based simulation model. In 2022 American Public Health Association Annual Meeting and Expo (APHA '22). abstract.

st denotes equal contribution

<sup>&</sup>lt;sup>1</sup>Due a request from my former employer, my name is not on the version of record. The authors' version is available on arXiv.

- W2. Rhodri Dierst-Davies, Sarah Godby Vail, Sarah Ayton, Greg Lidrbauch, Jennifer Vargas, Nik Andric, Emma Harvey, Greg Szwartz, Miguel Garza, Javier Lozano, Alexandro Arias, Paulina Sosa, Paola Martinez and Jose Reyes. 2019. A Mixed-Methods Approach Integrating Behavioral Insights and Data Analytics to Address Retention at Diabetes Clinics in Mexico: A Guide for Program Development. In 2019 American Public Health Association Annual Meeting and Expo (APHA '19). abstract.
- W1. Emma Harvey, Nik Andric, Rhodri Dierst-Davies, Sarah Godby Vail, Greg Szwartz, Alexandro Arias, Kevin Coltin, Javier Lozano, Miguel Garza, Sarah Ayton, Greg Lidrbauch, Jose Reyes, Paulina Sosa, and Paola Martinez. *Pathway Analysis for Care Adherence Modeling*. In 2019 American Public Health Association Annual Meeting and Expo (APHA '19). abstract.

### WORK EXPERIENCE

#### Microsoft Research

May 2024 - present

Research Intern, FATE (Fairness, Accountability, Transparency, Ethics in AI)

Bridging the gap between research and practice in measuring representational harms from large language models under the supervision of Emily Sheng, Su Lin Blodgett, Alex Chouldechova, Alexandra Olteanu, and Hanna Wallach

#### New York University

Mar. 2023 - present

Research Assistant, Expanding AI Audits

Auditing the assumptions upon which motion capture systems are based under the supervision of Abigail Jacobs, Emanuel Moss, and Mona Sloane

#### University of Cambridge

Jul. 2021 - Aug. 2024

Research Assistant, Compliant and Accountable Systems

Explored practical methods for conducting fairness assessments of decision-making algorithms without access to demographic data under the supervision of Jatinder Singh

#### **Deloitte Consulting**

Feb. 2018 - Aug. 2023

Data Scientist, AI & Advanced Analytics

Created Deloitte's first ethical AI toolkit to detect bias in decision-making systems; used to audit algorithms in education, healthcare, and hiring

### TEACHING

| Cornell University |
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Teaching Assistant, Introduction to Data Science (INFO 2950)

Aug. 2024 - Jan. 2025

#### University of California San Diego

Co-Instructor, Responsible AI Data Science Capstone, Prof. David Danks

Aug. 2022 - Mar. 2023

#### Carnegie Mellon University

Guest Lecturer, Designing Smart and Healthy Systems, Prof. David Steier

Sep. 2019 - Dec. 2021

#### University of Pennsylvania

Teaching Assistant, Penn in Washington, Prof. Deirdre Martinez

May 2014 - Dec. 2017

# SERVICE

| Academic   |             |
|--|-------------|
| Ethics Reviewer, NeurIPS   | 2024        |
| Scheduling Co-Chair, ACM FAccT   | 2024        |
| Program Committee Member, ACM FAccT  | 2024        |
| Student Volunteer, ACM FAccT   | 2024        |
| Student Volunteer, ACM FAccT   | 2022        |
| COMMUNITY  |             |
| Student Reviewer and Interviewer, Cornell Information Science PhD Admissions | 2024        |
| Mentor, Cornell IS Student-Applicant Reading Program (SARP)                  | 2023        |
| Pro Bono Researcher, Algorithmic Justice League                              | 2020 - 2023 |
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