# Manish Raghavan

mraghavan@seas.harvard.edu
https://mraghavan.github.io/

## EDUCATION

**Ph.D., Computer Science**                                                      2016–2021
*Cornell University*
    Advisor: Jon Kleinberg

**M.S., Computer Science**                                                            2018
*Cornell University*
    GPA: 4.00

**B.S., Electrical Engineering and Computer Science**                              2012–2016
*University of California, Berkeley*
    GPA: 4.00

## EMPLOYMENT

**Assistant Professor**                                                Beginning August 2022
*Massachusetts Institute of Technology, Cambridge, MA*
*Sloan School of Management and Department of Electrical Engineering and Computer Science*

**Postdoctoral Fellow**                                              August 2021–Present
*Harvard Center for Research on Computation and Society, Cambridge, MA*

**Research Intern**                                                   May–September 2019
**Visiting Researcher**                                       September 2019–August 2021
*Facebook, New York, NY*
    Evaluated social impacts of products
    Developed educational materials for issues related to algorithmic fairness

**Software Engineering Intern**                                          May–August 2018
*Google, Mountain View, CA*
    Analyzed user behavior on social media
    Developed and analyzed algorithms for stochastic probing problems (results published at ICML 2019)

**Research Intern**                                                      May–August 2017
*Microsoft Research, New York, NY*
    Researched algorithmic fairness in contextual bandit settings (results published at COLT 2018)

**Teaching Assistant**                                           January 2014–May 2016
*UC Berkeley*
    CS 61B: Data Structures and Algorithms; CS 70: Discrete Math and Probability Theory; CS 170: Introduction
    to CS Theory
    Taught 30–50-student sections, held office hours, and developed course materials (4 semesters total)

**Research Intern**                                                      May–August 2015
*Cornell University*
    Developed a graph-theoretic model for sophisticated present-biased agents (results published at EC 2016)

# PUBLICATIONS

1. N. Dalvi, M. Olteanu, M. Raghavan, and P. Bohannon. *Deduplicating a Places Database.* In *Proc. 23rd International World Wide Web Conference.* April 2014

2. J. Kleinberg, S. Oren, and M. Raghavan. *Planning Problems for Sophisticated Agents with Present Bias.* In *Proc. 17th ACM Conference on Economics and Computation.* July 2016

3. J. Kleinberg, S. Mullainathan, and M. Raghavan. *Inherent Trade-offs in the Fair Determination of Risk Scores.* In *The 8th Innovations in Theoretical Computer Science Conference.* January 2017

4. M. Olteanu, N. Dalvi, and M. Raghavan. *Identifying descriptive terms associated with a physical location from a location store.* In *U.S. Patent No. 9613054.* April 2017

5. J. Kleinberg, S. Oren, and M. Raghavan. *Planning with Multiple Biases.* In *Proc. 18th ACM Conference on Economics and Computation.* June 2017

6. G. Pleiss, M. Raghavan, F. Wu, J. Kleinberg, K. Weinberger. *On Fairness and Calibration.* In *Proc. 31st Annual Conference on Neural Information Processing Systems.* December 2017

7. J. Kleinberg, M. Raghavan. *Selection Problems in the Presence of Implicit Bias.* In *The 9th Innovations in Theoretical Computer Science Conference.* January 2018

8. M. Raghavan, A. Anderson, J. Kleinberg. *Mapping the Invocation Structure of Online Political Interaction.* In *Proc. 27rd International World Wide Web Conference.* April 2018

9. M. Raghavan, A. Slivkins, J. W. Vaughan, Z. S. Wu. *The Externalities of Exploration and How Data Diversity Helps Exploitation.* In *Conference on Learning Theory.* July 2018

10. M. Raghavan, M. Purohit, S. Gollapudi. *Hiring Under Uncertainty.* In *International Conference on Machine Learning.* June 2019

11. J. Kleinberg, M. Raghavan. *How Do Classifiers Induce Agents To Invest Effort Strategically?.* In *Proc. 20th ACM Conference on Economics and Computation.* June 2019; Also appeared in *ACM Transactions on Economics and Computing.* October 2020, and as *Designing Evaluation Rules that are Robust to Strategic Behavior* in *Proc. 34th AAAI Conference on Artificial Intelligence*, Sister Conference Track, April 2020.

12. M. Raghavan, S. Barocas. *Challenges for mitigating bias in algorithmic hiring.* In *The Brookings Institution.* December 2019

13. R. Abebe, S. Barocas, J. Kleinberg, K. Levy, M. Raghavan, D. G. Robinson. *Roles for Computing in Social Change.* In *Proc. Third ACM Conference on Fairness, Accountability, and Transparency.* January 2020

14. S. Barocas, A. D. Selbst, M. Raghavan. *The Hidden Assumptions Behind Counterfactual Explanations and Principal Reasons.* In *Proc. Third ACM Conference on Fairness, Accountability, and Transparency.* January 2020

15. M. Raghavan, S. Barocas, J. Kleinberg, K. Levy. *Mitigating Bias in Algorithmic Hiring: Evaluating Claims and Practices.* In *Proc. Third ACM Conference on Fairness, Accountability, and Transparency.* January 2020

16. J. Finocchiaro, R. Maio, F. Monachou, G. K. Patro, M. Raghavan, A.-A. Stoica, and S. Tsirtis. *Bridging Machine Learning and Mechanism Design towards Algorithmic Fairness.* In *Proc. Fourth ACM Conference on Fairness, Accountability, and Transparency.* January 2021

17. J. Kleinberg and M. Raghavan. *Algorithmic Monoculture and Social Welfare.* In *Proc. National Academy of Sciences 118(22).* June 2021

18. J. Kleinberg, S. Oren, M. Raghavan, and N. Sklar. *Stochastic Model for Sunk Cost Bias*. In *Proc. 37th Conference on Uncertainty in Artificial Intelligence*. July 2021

19. E. Black, M. Raghavan, and S. Barocas. *Model Multiplicity: Opportunities, Concerns, and Solutions*. In *Proc. Fourth ACM Conference on Fairness, Accountability, and Transparency*. June 2022

20. J. Kleinberg, S. Mullainathan, and M. Raghavan. *The Challenge of Understanding What Users Want: Inconsistent Preferences and Engagement Optimization*. In *Proc. 23rd ACM Conference on Economics and Computation*. July 2022

## AWARDS AND HONORS

| | |
|---|---|
| **Regents' and Chancellor's Scholar**, UC Berkeley | 2012–2016 |
| **Outstanding Graduate Student Instructor**, UC Berkeley | 2015–2016 |
| **Hertz Foundation Fellowship Finalist** | 2016 |
| **Cornell University Fellowship Recipient** | 2016–2017 |
| **NSF GRFP Fellowship Recipient** | 2017–2021 |
| **Microsoft Research PhD Fellowship Recipient** | 2018–2020 |
| **SIGecom Doctoral Dissertation Award Honorable Mention** | 2021 |

## INVITED TALKS AND WORKSHOPS

**Social Impact through Network Science** — June 8–10, 2016
Venice, Italy. *Planning Problems for Sophisticated Agents with Present Bias*

**Fairness, Accountability, and Transparency in Machine Learning** — November 18, 2016
New York, New York. *Inherent Trade-Offs in the Fair Determination of Risk Scores*

**Young Researcher Workshop on Economics and Computation** — January 1–5, 2017
Tel Aviv, Israel. *Planning Problems for Sophisticated Agents with Present Bias*

**Workshop on Prioritising Online Content** — December 9, 2017
Long Beach, California. *The Externalities of Exploration and How Data Diversity Helps Exploitation*

**Deloitte Data Scientist Speaker Series** — September 7, 2018
Virtual. *Algorithmic Fairness and Bias*

**Workshop on Workshop on Ethical, Social and Governance Issues in AI** — December 7, 2018
Montreal, Canada. *How Do Classifiers Induce Agents To Invest Effort Strategically?*

**Privacy Law Scholars Conference** — May 30–31, 2019
Berkeley, California. *Formalism, Computing, and Social Change*

**Learning in the Presence of Strategic Behavior** — June 28, 2019
Phoenix, Arizona. *How Do Classifiers Induce Agents To Invest Effort Strategically?*

**Mechanism Design for Social Good** — June 28, 2019
Phoenix, Arizona. *Mitigating Bias in Algorithmic Hiring: Evaluating Claims and Practices*

**NeurIPS 2019 Workshop on Robust AI in Financial Services** — December 13, 2019
Vancouver, Canada. *The Hidden Assumptions Behind Counterfactual Explanations and Principal Reasons*

**Workshop on Human Interpretability in Machine Learning** — July 17, 2020
Virtual. *The Hidden Assumptions Behind Counterfactual Explanations and Principal Reasons*

**Workshop on Participatory Approaches to Machine Learning** — July 17, 2020
Virtual. *The Hidden Assumptions Behind Counterfactual Explanations and Principal Reasons*

**Workshop on Law & Machine Learning** — July 17, 2020
Virtual. *Mitigating Bias in Algorithmic Hiring: Evaluating Claims and Practices*

**AI for Social Good (AI4SG 2020)** — July 20, 2020
Virtual. *Fairness and Discrimination in Mechanism Design and Machine Learning*

**Walmart Community of Practice** — August 26, 2020
Virtual. *Algorithmic Fairness in Practice*

**Netflix Research Seminar** — May 21, 2021

Virtual. *The Societal Impacts of Algorithmic Decision-Making*

**Israel Algorithmic Game Theory Seminar** <span style="float:right">October 19, 2021</span>

Virtual. *Understanding Societal Impacts through Machine Learning and Mechanism Design: Automated Hiring as a Case Study*

**Workshop on Explainable AI in Finance** <span style="float:right">November 3, 2021</span>

Virtual. *Explanations in Whose Interests?*

**NYU Data Science Seminar** <span style="float:right">April 6, 2022</span>

Virtual. *The Challenge of Understanding What Users Want: Inconsistent Preferences and Engagement Optimization*

**Harvard EconCS Seminar** <span style="float:right">April 8, 2022</span>

Virtual. *The Challenge of Understanding What Users Want: Inconsistent Preferences and Engagement Optimization*

**Facebook Core Data Science Seminar** <span style="float:right">May 6, 2022</span>

Virtual. *The Challenge of Understanding What Users Want: Inconsistent Preferences and Engagement Optimization*