Manish Raghavan

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https://mraghavan.github.io/

EDUCATION

Ph.D., Computer Science 2016–2021
Cornell University
Thesis: *The Societal Impacts of Algorithmic Decision-Making.* Advised by Jon Kleinberg.

M.S., Computer Science 2018
Cornell University

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

EMPLOYMENT

Drew Houston (2005) Career Development Professor August 2022–Present
Massachusetts Institute of Technology, Cambridge, MA
Sloan School of Management and Department of Electrical Engineering and Computer Science

Postdoctoral Fellow August 2021–August 2022
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 as:
    How Do Classifiers Induce Agents To Invest Effort Strategically?. In *ACM Transactions on Economics and Computing*. October 2020
    Designing Evaluation Rules that are Robust to Strategic Behavior. In *Proc. 34th AAAI Conference on Artificial Intelligence, Sister Conference Track*. April 2020
    Algorithmic Classification and Strategic Effort. In *SIGecom Exchanges*. November 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
ACM Doctoral Dissertation Award 2021
Cornell University Department of Computer Scince PhD Dissertation Award 2022
ACM EC Exemplary Applied Modeling Track Paper Award 2022

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*

FinRegLab Advisory Board July 14, 2021
Virtual. *Measuring Fairness*

Israel Algorithmic Game Theory Seminar October 19, 2021
Virtual. *Understanding Societal Impacts through Machine Learning and Mechanism Design: Automated Hiring as a Case Study*

Workshop on Explainable AI in Finance November 3, 2021
Virtual. *Explanations in Whose Interests?*

ASSA Session on Auditing and Regulating AI Systems January 7, 2022
Virtual. *Mitigating Bias in Algorithmic Hiring: Evaluating Claims and Practices*

AAAI Explainable Agency in Artificial Intelligence Workshop February 28–March 1, 2022
Virtual. *Explanations in Whose Interests?*

NYU Data Science Seminar April 6, 2022
Virtual. *The Challenge of Understanding What Users Want: Inconsistent Preferences and Engagement Optimization*

Harvard EconCS Seminar April 8, 2022
Virtual. *The Challenge of Understanding What Users Want: Inconsistent Preferences and Engagement Optimization*

Artificial Intelligence and the Economy April 27, 2022
U.S. Dept. of Commerce, Washington D.C. *The Future of AI in Financial Services (Panel)*

Facebook Core Data Science Seminar May 6, 2022
Virtual. *The Challenge of Understanding What Users Want: Inconsistent Preferences and Engagement Optimization*

Ethical Issues in AI and Computing Conference June 2–3, 2022
Cambridge, MA. *The Right to be an Exception in Data-Driven Decision-Making*

Privacy Law Scholars Conference June 2–3, 2022
Boston, MA. *The Right to be an Exception in Data-Driven Decision-Making*

Algorithmic Contract Design: Present and Future (EC '22 Workshop) July 15, 2022
Boulder, CO. *Reflections on Incentivizing Behavior through Evaluation (Invited Talk)*

5th IDSC of IZA Workshop: Matching Workers and Jobs Online September 16–17, 2022
Virtual. *Mitigating Bias in Algorithmic Hiring: Evaluating Claims and Practices (Keynote)*

Johns Hopkins Behavioral Science Forum on Technology and Social Change October 28, 2022
Baltimore, MD. *The Challenge of Understanding What Users Want: Inconsistent Preferences and Engagement Optimization (Invited talk)*

SERVICE

International Advisory Board, Sai University (Chennai, India) 2021–Present

Program Committees

- ACM Conference on Fairness, Accountability, and Transparency: 2020, 2021, 2022 (Area Chair)
- ACM Conference on Economics and Computing: 2019, 2020, 2021, 2022
- ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization: 2021, 2022
- Conference on Neural Processing Systems: 2021
- Conference on Web and Internet Economics: 2021
- AAAI Conference on Artificial Intelligence: 2020, 2021
- International Conference on Learning Representations: 2021

Journal Reviewing.
Journal of Machine Learning Research, Proceedings of the National Academy of Sciences, Artificial Intelligence, Management Science, Patterns, and others

Coach 2021–Present
Harvard Men's Soccer Club