Meena Jagadeesan

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Summary.

I am a 1st year Computer Science PhD student at UC Berkeley, where I am a member of the Berkeley AI Research Lab (BAIR) and the Theory Group. I work on research on the theoretical foundations of machine learning and algorithms.

Education

UC Berkelev Berkeley, CA, USA PhD in Computer Science Aug. 2020 - Present

Advised by Moritz Hardt, Michael I. Jordan, and Jacob Steinhardt

Selected Honors: EECS Excellence Award

Harvard University Cambridge, MA, USA S.M. IN COMPUTER SCIENCE Sept. 2019- May 2020

Harvard University

Cambridge, MA, USA A.B. IN COMPUTER SCIENCE AND MATH, summa cum laude Sept. 2016- May 2020

• Secondary Field: Statistics

• Selected Honors: Phi Beta Kappa, Hoopes Prize, Detur Book Prize, Certificate of Distinction in Teaching

Phillips Exeter Academy Exeter, NH, USA HIGH SCHOOL DIPLOMA Sept. 2012- June 2016

Fellowships

Open Philanthropy AI Fellowship (2021-2025)

Paul and Daisy Soros Fellowship for New Americans (2020-2022)

Berkeley Fellowship (2020-2023) Siebel Scholarship (2019-2020)

Honors & Awards

CRA Outstanding Undergraduate Researcher Award (2020)

Barry Goldwater Scholar (2018)

Intel Science Talent Search, 2nd Place in Basic Research (2016)

Davidson Fellow Laureate (2016)

Publications _ (* denotes equal contribution or alphabetical ordering)

PREPRINTS:

 Inductive Bias of Multi-Channel Linear Convolutional Networks with Bounded Weight Norm. Manuscript under submission.

Meena Jagadeesan, Ilya Razenshteyn, and Suriya Gunasekar.

• Individual Fairness in Advertising Auctions through Inverse Proportionality. Manuscript under submission. Shuchi Chawla* and Meena Jagadeesan*.

CONFERENCE AND JOURNAL PAPERS:

• Alternative Microfoundations for Strategic Classification. Proceedings of the 38th International Conference on Machine Learning (ICML), 2021 (to appear).

Meena Jagadeesan, Celestine Mendler-Dünner, and Moritz Hardt.

- Multi-Category Fairness in Sponsored Search Auctions. Proceedings of the 3rd ACM Conference on Fairness, Accountability and Transparency (FAT*), pp. 348–358, 2020.
 - Christina Ilvento*, Meena Jagadeesan*, and Shuchi Chawla.
- Individual Fairness in Pipelines. Proceedings of the 1st Conference on Foundations of Responsible Computation (FORC), pp. 7:1-7:22, 2020.
 - Cynthia Dwork*, Christina Ilvento*, and Meena Jagadeesan*.
- Understanding Sparse JL for Feature Hashing. Proceedings of the 33rd Annual Conference on Neural Information Processing Systems (NeurIPS), pp. 15177-15187, 2019. NeurIPS 2019 Oral presentation (given to 3% of accepted

papers).

Meena Jagadeesan.

- Simple Analysis of Sparse, Sign-Consistent JL. Proceedings of the 23rd International Conference on Randomization and Computation (RANDOM), pp. 61:1–61:20, 2019.

 Meena Jagadeesan.
- Varying the Number of Signals in Matching Markets. Proceedings of the 14th International Conference on Web and Internet Economics (WINE), pp. 232-245, 2018.

 Meena Jagadeesan* and Alexander Wei*.
- Dyson's Partition Ranks and their Multiplicative Extensions. The Ramanujan Journal, Vol. 45, Issue 3, pp. 817–839, April 2018.

Elaine Hou* and Meena Jagadeesan*.

• Mobius Polynomials of Face Posets of Convex Polytopes. Communications in Algebra, Vol. 44, Issue 11, pp. 4945-4972, 2016.

Meena Jagadeesan and Susan Durst.

SHORT CONFERENCE PAPERS:

• From Worst-Case to Average-Case Analysis: Accurate Latency Predictions for Key-Value Storage Engines. Proceedings of the ACM International Conference on Management of Data (SIGMOD), pp. 2853-3855, 2020. 1st Place at SIGMOD SRC.

Meena Jagadeesan* and Garrett Tanzer*.

Theses

• The Performance of Johnson-Lindenstrauss Transforms: Beyond the Classical Setting. *Undergraduate Thesis*. Awarded Hoopes Prize.

Advised by Prof. Jelani Nelson.

Talks

- FORC (6/10/21): "Individual Fairness in Advertising Auctions through Inverse Proportionality".
- Google Research Algorithms Seminar (5/20/21): "Alternative Microfoundations for Strategic Classification".
- MIT Algorithms & Complexity Seminar (4/7/21): "Inductive Bias of Multi-Channel Linear Convolutional Networks with Bounded Weight Norm".
- INFORMS Annual Meeting, Market Algorithms Session (11/11/20): "Fairness in Advertising Auctions".
- *Microsoft Research MLO Group Seminar* (6/24/20): "Understanding Sparse Johnson-Lindenstrauss Transforms for Feature Hashing".
- Algorithmic Game Theory Mentoring Workshop at ACM EC (6/15/20): "Fairness in Advertising Auctions".
- ACM FAT* (1/29/20): "Multi-Category Fairness in Sponsored Search Auctions".
- NeurIPS (12/12/19): "Understanding Sparse JL for Feature Hashing".
- RANDOM (9/21/19): "Simple Analysis of Sparse, Sign-Consistent JL".
- University of Wisconsin-Madison Theory Seminar (5/17/19): "Analyzing Johnson-Lindenstrauss Transforms".
- WINE (12/17/18): "Varying the Number of Signals in Matching Markets".
- Workshop on Frontiers of Market Design at ACM EC (6/22/18): "Varying the Number of Signals in Matching Markets".

Industry Experience _____

Microsoft Research Redmond, WA

Undergraduate Research Intern

May 2020 - Aug. 2020

• Mentors: Suriya Gunasekar and Ilya Razenshteyn (Machine Learning and Optimization Group in MSR AI)

Microsoft

San Francisco, CA May 2018 - Aug. 2018

SOFTWARE ENGINEER/PROGRAM MANAGER INTERN

Teaching and Service _____

Reviewer/Sub-Reviewer

2019-Present

• Reviewed submissions for ICML 2021, ACM FAccT 2021, STACS 2021, ITCS 2021, SOSA 2021, Management Science, and JAIR.

Teaching Fellow for Harvard CS 61

Sept. 2018 - Dec. 2018

• CS 61 is Harvard's introductory systems programming class for computer science undergraduates, taught by Prof. Eddie Kohler. I led a biweekly discussion section and weekly Office Hours, helped design section materials, and graded problem sets. **Awarded a Certification of Distinction in Teaching**.