# 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 BAIR and the Theory Group. I work on research in algorithms and machine learning, with a focus on theoretical foundations and societal impact.

## **Education**

**UC Berkelev** 

PHD IN COMPUTER SCIENCE

Selected Honors: EECS Excellence Award

**Harvard University** 

S.M. IN COMPUTER SCIENCE

**Harvard University** 

A.B. IN COMPUTER SCIENCE AND MATH, summa cum laude

• Secondary Field: Statistics

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

**Phillips Exeter Academy** 

HIGH SCHOOL DIPLOMA

Cambridge, MA, USA 2019-2020

Berkeley, CA, USA

2020 - Present

Cambridge, MA, USA

2016-2020

Exeter, NH, USA 2012-2016

## Fellowships\_

Berkeley Fellowship (2022-2024).

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

Siebel Scholarship (2019-2020).

## **Honors & Awards**

**CRA Outstanding Undergraduate Researcher Award** (2020).

**NeurIPS Oral Presentation** (2019).

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:

• Fairness in ad auctions through inverse proportionality. Manuscript under submission. Shuchi Chawla\* and Meena Jagadeesan\*.

#### **CONFERENCE AND JOURNAL PAPERS:**

- Multi-Category Fairness in Sponsored Search Auctions. Proceedings of the 3rd ACM Conference on Fairness, Accountability and Transparency (FAT\*), 2020, pp. 348–358.
  - 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), 2019, pp. 15177-15187. 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, April 2018. pp. 817-839.
  - Elaine Hou\* and Meena Jagadeesan\*.
- Mobius Polynomials of Face Posets of Convex Polytopes. Communications in Algebra, Vol. 44, Issue 11, 2016, pp. 4945-4972.

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), 2020, pp. 2853-3855. 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

- 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 May 2020 - Aug. 2020

Undergraduate Research Intern

- Research intern at MSR AI in the Machine Learning and Optimization Group
- Mentors: Ilya Razenshteyn and Suriya Gunasekar

San Francisco, CA May 2018 - Aug. 2018

SOFTWARE ENGINEER/PROGRAM MANAGER INTERN

## **Teaching and Service**

#### Reviewer/Sub-Reviewer

2019-Present

• Reviewed submissions for ITCS, SOSA, Management Science, and JAIR.

#### **Mentor for BAIR Undergraduate Mentorship Program**

Sept. 2020 - Present

• Mentored undergraduate students from underrepresented groups who are interested in pursuing AI research.

### **Teaching Fellow for Harvard CS 61**

Sept. 2018 - Dec. 2018

• CS 61 is Harvard's introductory systems programming class for computer science undergraduates. 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.