# Meena Jagadeesan

mjagadeesan@berkeley.edu | https://mjagadeesan.github.io/ | meena-jagadeesan

## 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 Berkeley** — *Berkeley, CA, USA*
PhD in Computer Science — *2020 - Ongoing*
- Selected Honors: EECS Excellence Award

**Harvard University** — *Cambridge, MA, USA*
S.M. in Computer Science — *2019-2020*

**Harvard University** — *Cambridge, MA, USA*
A.B. in Computer Science and Math, *summa cum laude* — *2019-2020*
- 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 — *2016-2020*

## Fellowships

**Paul and Daisy Soros Fellowship for New Americans** (2020-2024).
**Berkeley Fellowship** (2020-2024).
**Siebel Scholarship** (2019-2020).
**Barry Goldwater Scholarship** (2018-2020).

## Honors & Awards

**CRA Outstanding Undergraduate Researcher Award** (2020).
**NeurIPS Oral Presentation** (2019).
**Intel Science Talent Search, 2nd Place in Basic Research** (2016).
**Davidson Fellow Laureate** (2016).

## Publications

(* denotes equal contribution or alphabetical ordering)

### 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.
- **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*
Undergraduate Research Intern — *May 2020 - Aug. 2020*
- Mentors: Ilya Razenshteyn and Suriya Gunasekar
- Worked on the theory of convolutional neural networks (manuscript in progress).

**Microsoft** — *San Francisco, CA*
Software Engineer/Program Manager Intern — *May 2018 - Aug. 2018*

## 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 the 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.