Meena Jagadeesan

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Summary

I'm a 3rd year Computer Science PhD student at UC Berkeley, where I'm a member of the Berkeley AI Research Lab (BAIR) and the Theory Group. My research aims to develop theoretical foundations for machine learning and algorithmic decision-making.

Education

UC Berkeley — *Berkeley, CA, USA*
PhD in Computer Science — *Aug. 2020 - Present*
- Advised by 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; α-β denotes alphabetical ordering)

Preprints:

- **Competition, Alignment, and Equilibria in Digital Marketplaces**. *Manuscript under submission*.
  Meena Jagadeesan, Michael I. Jordan, and Nika Haghtalab.
- **Supply-Side Equilibria in Recommender Systems**. *Manuscript under submission*.
  Meena Jagadeesan, Nikhil Garg, and Jacob Steinhardt.
- **Performative Power**. *Manuscript under submission*.
  (α-β) Moritz Hardt, Meena Jagadeesan, and Celestine Mendler-Dünner.

Conference and Journal Papers:

- **Regret Minimization with Performative Feedback**. *Proceedings of the 39th International Conference on Machine Learning (ICML), 9760-9785, 2022.* .
  Meena Jagadeesan, Tijana Zrnic, and Celestine Mendler-Dünner.
- **Inductive Bias of Multi-Channel Linear Convolutional Networks with Bounded Weight Norm**. *Proceedings of the 35th Annual Conference on Learning Theory (COLT), 2276-2325, 2022*.
  Meena Jagadeesan, Ilya Razenshteyn, and Suriya Gunasekar.

- **Individual Fairness in Advertising Auctions through Inverse Proportionality**. *Proceedings of the 13th Innovations in Theoretical Computer Science Conference (ITCS), 42:1-42:21, 2022*.
  (α-β) Shuchi Chawla and Meena Jagadeesan.
- **Learning Equilibria in Matching Markets from Bandit Feedback**. *Proceedings of the 35th Conference on Neural Information Processing Systems (NeurIPS), 2021*. NeurIPS 2021 Spotlight presentation (given to 10% of accepted papers).
  Meena Jagadeesan*, Alexander Wei*, Yixin Wang, Michael I. Jordan, Jacob Steinhardt.
- **Alternative Microfoundations for Strategic Classification**. *Proceedings of the 38th International Conference on Machine Learning (ICML), pg. 4687-4697, 2021*.
  Meena Jagadeesan, Celestine Mendler-Dünner, and Moritz Hardt.
- **Cosine: A Cloud-Cost Optimized Self-Designing Key-Value Storage Engine**. *Proceedings of Very Large Data Base Endowment (VLDB), pg. 112-126, 2022*.
  Subarna Chatterjee, Meena Jagadeesan, Wilson Qin, and Stratos Idreos.
- **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*.
  (α-β) 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*.
  (α-β) 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

- *INFORMS Annual Meeting, Responsible, Ethical, and Socially Aware Operations Session* (upcoming): "Performative Power".
- *ICML* (7/21/22): "Regret Minimization with Performative Feedback".
- *COLT* (7/3/22): "Inductive Bias of Multi-Channel Linear Convolutional Networks with Bounded Weight Norm".
- *INFORMS Revenue Management and Pricing (RMP) Workshop* (6/22/22): "Supply-Side Equilibria in Recommender

Systems".

- *Workshop on Algorithms for Learning and Economics (WALE)* (6/16/22): "Regret Minimization with Performative Feedback".
- *Workshop on Algorithms for Learning and Economics (WALE)* (6/15/22): "Competition, Alignment, and Equilibria in Digital Marketplaces".
- *ITCS* (2/1/22): "Individual Fairness in Advertising Auctions through Inverse Proportionality".
- *ITCS* (2/1/22): "Individual Fairness in Advertising Auctions through Inverse Proportionality".
- *ICML* (7/21/21): "Alternative Microfoundations for Strategic Classification".
- *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*
Software Engineer/Program Manager Intern — *May 2018 - Aug. 2018*

Teaching and Service

Reviewer/Sub-Reviewer — *2019-*
- Reviewed submissions for MATCHUP 2022, ICML 2022, ACM FAcct 2022, ICLR 2022, NeurIPS 2021, ICML 2021, ACM FAccT 2021, STACS 2021, ITCS 2021, SOSA 2021, Management Science, and JAIR.

Co-President of Women in CS and EE (WICSE) — *2022-2023*
- WiCSE aims at building a community between womxn graduate students and creating a welcoming and supportive environment for them throughout their graduate studies.

Graduate Student Instructor for UC Berkeley CS 281A — *Aug. 2021 - Dec. 2021*
- Graduate-level introductory course on Statistical Learning Theory at UC Berkeley.

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.