

Jamie Morgenstern

Curriculum Vitae

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Education

- 2010–2015 **Ph.D. in Computer Science**,
Carnegie Mellon University, Pittsburgh, PA.
Advisor: Avrim Blum
- 2012 **M.S. in Computer Science**,
Carnegie Mellon University, Pittsburgh, PA.
- 2006–2010 **B.S. in Computer Science and B.A. in Mathematics**,
University of Chicago, Chicago, IL.,
Honors in Computer Science and General Honors.
Four-year merit scholarship.

Research Interests

Machine learning for economics, fairness in machine learning, algorithmic game theory, learning theory, privacy, mechanism design.

Honors, Awards, and Funding

- 2016 **Penn Fels Policy Research Initiative RFP**,
Collaborative research grant,
w. Sampath Kannan, Mallesh Pai, Aaron Roth, and Rakesh Vohra.
- 2014–2016 **Simons Award for Graduate Students in Theoretical Computer Science.**
- 2010–2011 **Microsoft Graduate Women’s Scholarship.**
- 2010–2013 **NSF Graduate Research Fellowship.**
- 2006 **National Merit Scholar.**

Workshops and Tutorial Organization

- 2017 **Organizer of Workshop on Fairness in Machine Learning**,
to be held January 2017, University of Pennsylvania,
w. Sampath Kannan, Mallesh Pai, Aaron Roth, and Rakesh Vohra.
- 2016 **Organizer of EC Tutorial on Algorithmic Game Theory and Data Science**,
Maastricht University, w. Vasilis Syrgkanis.

Research Experience

- 2015–present **Warren Fellow of Computer Science and Economics**, *University of Pennsylvania*,
w. Michael Kearns, Rakesh Vohra, Aaron Roth.
- Summer 2013 **Research Internship**, *Microsoft Research Redmond*, w. Nikhil Devanur.
- Summer 2012 **Research Internship**, *Bell Labs, Alcatel Lucent Technologies*, w. Lisa Zhang, Gordon Wilfong.

Long-term Visits

- Fall 2016 **Postdoctoral Visitor**, *Simons Institute*, Semester on Algorithms and Uncertainty.
- Fall 2014 **Visitor**, *Stanford University*, hosted by Tim Roughgarden.
- Oct. 2013 **Visitor**, *University of Pennsylvania*, hosted by Aaron Roth.

Employment

- Summer 2010 **Software Development Internship**, *Google Pittsburgh*, w. Tom Murphy VII.

Refereed Conference Proceedings (Author Order Alphabetical)

- 2016 Michal Feldman, Ophir Friedler, Jamie Morgenstern, and Guy Reiner. “Simple Auctions with Complements”. In: *Economics and Computation (EC)*, pp. 251–267.
- 2016 Sanjeev Goyal, Shahin Jabbari, Sanjeev Khanna, Michael Kearns, and Jamie Morgenstern. “Strategic Network Formation with Attack and Immunization”. In: *Conference on Web and Internet Economics (WINE)*, to appear.
- 2016 Justin Hsu, Jamie Morgenstern, Ryan Rogers, Aaron Roth, and Rakesh Vohra. “Do Prices Coordinate Markets?” In: *Symposium on the Theory of Computation (STOC)*, pp. 440–453.
- 2016 Matthew Joseph, Michael Kearns, Jamie Morgenstern, and Aaron Roth. “Fairness in Learning: Classic and Contextual Bandits”. In: *Neural Information Processing Systems (NIPS)*, to appear.
- 2016 Jamie Morgenstern and Tim Roughgarden. “Learning Simple Auctions”. In: *Conference on Learning Theory (COLT)*, pp. 1298–1318.
- 2015 Avrim Blum, Yishay Mansour, and Jamie Morgenstern. “Learning Valuation Distributions from Partial Observation”. In: *Conference on Artificial Intelligence (AAAI)*, pp. 798–804.
- 2015 Avrim Blum, Yishay Mansour, and Jamie Morgenstern. “Learning What’s Going On: Reconstructing Preferences and Priorities from Opaque Transactions”. In: *Economics and Computation (EC)*, pp. 601–618.
- 2015 Avrim Blum, Jamie Morgenstern, Ankit Sharma, and Adam Smith. “Privacy-preserving Public Information in Sequential Games”. In: *Innovations in Theoretical Computer Science (ITCS)*, pp. 173–180.
- 2015 Nikhil Devanur, Jamie Morgenstern, Vasilis Syrgkanis, and S. Matthew Weinberg. “Simple Auctions with Simple Strategies”. In: *Economics and Computation (EC)*, pp. 305–322.
- 2015 Sampath Kannan, Jamie Morgenstern, Aaron Roth, and Ryan Rogers. “Private Pareto-Optimal Exchange”. In: *Economics and Computation (EC)*, pp. 261–278.
- 2015 Sampath Kannan, Jamie Morgenstern, Aaron Roth, and Steven Wu. “Approximately Stable, School Optimal, and Student-Truthful Many-to-One Matchings (via Differential Privacy)”. In: *Symposium on Discrete Algorithms (SODA)*, pp. 1890–1903.
- 2015 David Kurokawa, Omer Lev, Jamie Morgenstern, and Ariel Procaccia. “Impartial Peer Review”. In: *International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 582–588.
- 2015 Jamie Morgenstern and Tim Roughgarden. “The Pseudo-Dimension of Near-Optimal Auctions”. In: *Neural Information Processing Systems (NIPS)*, pp. 136–144. Selected for spotlight presentation, 3.6% acceptance rate.
- 2013 Simina Branzei, Ioannis Caragiannis, Jamie Morgenstern, and Ariel D. Procaccia. “How Bad Is Selfish Voting?” In: *Proceedings of the Twenty-Seventh Conference on Artificial Intelligence (AAAI)*, pp. 138–144.
- 2013 William Sean Kennedy, Jamie Morgenstern, Gordon Wilfong, and Lisa Zhang. “Hierarchical community decomposition via oblivious routing techniques”. In: *Proceedings of the first ACM Conference on Online Social Networks (COSN)*, pp. 107–118.
- 2012 Pranjal Awasthi, Avrim Blum, Jamie Morgenstern, and Or Sheffet. “Additive Approximation for Near-Perfect Phylogeny Construction”. In: *Workshop on Approximation Algorithms (APPROX)*, pp. 25–36.
- 2012 Steven J. Brams, Michal Feldman, John K. Lai, Jamie Morgenstern, and Ariel D. Procaccia. “On Maxsum Fair Cake Divisions”. In: *Proceedings of the Twenty-Sixth Conference on Artificial Intelligence (AAAI)*, pp. 1285–1291.
- 2011 Jamie Morgenstern, Deepak Garg, and Frank Pfenning. “A Proof-carrying File System with Revocable and Use-once Certificates”. In: *Proceedings of the 7th International Conference on Security and Trust Management (STM)*, pp. 40–55.
- 2010 Jamie Morgenstern and Daniel R. Licata. “Security-typed Programming Within Dependently Typed Programming”. In: *Proceedings of the 15th ACM SIGPLAN International Conference on Functional Programming (ICFP)*, pp. 169–180.

Submitted Journal Articles

- 2016 Avrim Blum, Yishay Mansour, and Jamie Morgenstern. *Learning What's Going On: Reconstructing Preferences and Priorities from Opaque Transactions*. Invited to Special Edition of *TEAC*.
- 2016 Sampath Kannan, Jamie Morgenstern, Aaron Roth, and Ryan Rogers. *Private Pareto-Optimal Exchange*. Invited to Special Edition of *TEAC*.

Invited Talks and Seminars

Fairness in Learning

- June 2016 *Microsoft Research New York*.

Do Prices Coordinate Markets?

- Dec. 2015 *Tel Aviv University*.

Learning Simple Auctions

- Apr. 2016 *Cornell University Theory Seminar*.
- Apr. 2016 *Bellairs Workshop on Algorithmic Game Theory*.

The Pseudo-Dimension of Nearly-Optimal Auctions

- Nov. 2015 *University of Wisconsin-Madison Theory Seminar*.
- Aug. 2015 *Microsoft Research New York Theory Seminar*.
- Sept. 2015 *Pennsylvania State University*.
- Mar. 2015 *University of Pennsylvania Theory Seminar*.
- Feb. 2015 *Carnegie Mellon University Theory Lunch*.

Approximately Stable, School Optimal, and Student-Truthful Many-to-one Matchings (via Differential Privacy)

- Nov. 2015 *Northwestern University Theory Seminar*.
- Apr. 2015 *California Institute of Technology Privacy Day 2015*.
- Feb. 2015 *ARC Colloquium, Georgia Tech*.
- Dec. 2014 *Carnegie Mellon University Theory Lunch*.
- Dec. 2014 *Microsoft Research New York Computer Science and Economics Day*.
- Oct. 2014 *Stanford University Theory Lunch*.
- Oct. 2014 *Stanford University Social Algorithms Lunch*.

Privacy-Preserving Public Information in Sequential Games

- Apr. 2014 *Boston University Theory Lunch*.
- Mar. 2014 *University of Pennsylvania*.

Simple Auctions with Simple Strategies

- Nov. 2014 *University of California Berkeley, Theory Lunch*.
- Oct. 2013 *University of Pennsylvania Theory Seminar*.
- Nov. 2013 *Carnegie Mellon Theory Lunch*.
- Aug. 2013 *Microsoft Research Redmond Theory Lunch*.

Impartial Peer Review

- Apr. 2014 *Harvard University AI Reading Group*.
- Apr. 2014 *Carnegie Mellon University Theory Lunch*.
- Feb. 2014 *University of Pennsylvania Theory Seminar*.

How Bad Is Selfish Voting?

- June 2013 *Microsoft Research Redmond Theory Lunch*.
- May 2013 *Pennsylvania State University*.
- Apr. 2013 *University of Washington Theory Seminar*.
- Apr. 2013 *Carnegie Mellon Theory Lunch*.

An Algorithm with Additive Error for Near-Perfect Phylogenies

- Oct. 2011 *Carnegie Mellon University Theory Lunch*.

Teaching

- 2012 **Instructor for CS 15122, Principles of Imperative Computation**
Carnegie Mellon University.
- 2011 **Head TA for CS 15122, Principles of Imperative Computation**
Carnegie Mellon University.
- 2009 **TA for Discrete Mathematics**
University of Chicago.
- 2006-2010 **Polk Brothers Program TA and student visitor**
Chicago Public Schools,
TA for continuing education course in number theory for Chicago Public School teachers, student visitor to public school classrooms.

Service

- 2016 **Program Committee** *EC, ICML.*
- 2016 **External Reviewer** *SWAT, AdAuctions, STOC, SODA, NIPS, TEAC.*
- 2015 **External Reviewer** *STOC, FOCS, SODA, ESA, WINE.*
- 2014 **External Reviewer** *STOC, FOCS, EC, WINE, SODA, SICOMP.*
- 2013 **External Reviewer** *WINE, SODA.*
- 2012-2014 **Doctoral Review Committee Member**
Carnegie Mellon University,
A panel of graduate students and faculty tasked with overseeing the PhD program.
- 2011-2012 **Coordinator of the Admitted Students Open House**
Carnegie Mellon University.
- 2011-2013 **PhD Admissions Committee**
Carnegie Mellon University.
- 2011-Present **Speaker's Club**
Carnegie Mellon University,
Reviewing and critiquing presentations made as part of the PhD program.
- 2010-2012 **SCS Little Sisters Mentor**
Carnegie Mellon University,
Mentored undergraduate women thinking about majoring in computer science.

References

References available upon request.