

## Shaili Jain

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**RESEARCH INTERESTS** Social Computing, Crowdsourcing, Human Computation, User Behavior, Machine Learning, Multi-Agent Systems, Mechanism Design, Game Theory

**CURRENT POSITION** **Microsoft**, Bellevue, WA  
Applied Researcher II, April 2013 - present  
Display Advertising Marketplaces Team

**EDUCATION** **Harvard University**, Cambridge, MA  
Ph.D., Computer Science, September 2010  
M.S., Computer Science, June 2006  
Thesis: Incentives in Social Computing  
Advisor: Prof. David C. Parkes

**University of Michigan**, Ann Arbor, MI  
B.S.E., Computer Science and Engineering, *summa cum laude*, May 2004  
B.S., Mathematics, *High Honors, High Distinction*, May 2004  
Honor Societies: Phi Kappa Phi, Tau Beta Pi, Eta Kappa Nu

**EXPERIENCE** **Yale University**, New Haven, CT  
Postdoctoral Associate, Oct 2010 - April 2013  
Host: Prof. Joan Feigenbaum

**Harvard University**, Cambridge, MA  
Research Assistant, Fall 2007 - Summer 2010  
Advisor: Prof. David C. Parkes

**Harvard University**, Cambridge, MA  
Teaching Fellow, Fall 2008, 2009  
CS 286r: Topics at the Interface between Computer Science and Economics  
Instructors: Prof. Yiling Chen, Prof. David C. Parkes

**Yahoo! Inc.**, Sunnyvale, CA  
Intern, Summer 2007  
Manager: Dr. Zhichen Xu

**Harvard University**, Cambridge, MA  
Teaching Fellow, Spring 2006, Summer 2006  
CS 124: Algorithms and Data Structures  
Instructor: Prof. Michael Mitzenmacher

**AT&T Labs Research**, Florham Park, NJ  
Research Intern, Summer 2004  
Mentor: Dr. Suresh Venkatasubramanian

**IBM Almaden Research Center**, San Jose, CA  
Intern, Summer 2002, 2003  
Mentor: Dr. Ramesh Agarwal

## JOURNAL PUBLICATIONS

1. Christopher G. Brinton, Mung Chiang, **Shaili Jain**, Henry Lam, Zhenming Liu, Felix Ming Fai Wong. Learning about social learning in MOOCs: From statistical analysis to generative model. Submitted.
2. **Shaili Jain** and David C. Parkes. A Game-Theoretic Analysis of the ESP Game. *ACM Transactions on Economics and Computation*, Volume 1, Issue 1, January 2013.
3. **Shaili Jain**, Yiling Chen and David C. Parkes. Designing Incentives for Online Question and Answer Forums. Forthcoming, *Games and Economic Behavior*, 2012.
4. Ramesh C. Agarwal, Karan Gupta, **Shaili Jain**, Suchitra Amalapurapu. An Approximation to the Greedy Algorithm for Differential Compression. *IBM Journal of Research and Development*, Volume 50, Issue 1, January 2006, pp. 149-166.

## CONFERENCE PUBLICATIONS

1. Ruggiero Cavallo and **Shaili Jain**. Winner-Take-All Crowdsourcing Contests with Stochastic Production. *Proceedings of the First AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, 2013.
2. Jinfeng Yi, Rong Jin, **Shaili Jain**, and Anil K. Jain. Inferring Users' Preferences from Crowdsourced Pairwise Comparisons: A Matrix Completion Approach. *Proceedings of the First AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, 2013.
3. Jinfeng Yi, Rong Jin, Anil K. Jain, **Shaili Jain**, and Tianbao Yang. Semi-Crowdsourced Clustering: Generalizing Crowd Labeling by Robust Distance Metric Learning. *Proceedings of Neural Information Processing Systems (NIPS)*, 2012.
4. Jinfeng Yi, Rong Jin, Anil K. Jain and **Shaili Jain**. Crowdclustering via Matrix Completion. Presented at the *Human Computation Workshop (HCOMP)*, 2012, (held in conjunction with AAAI 2012).
5. Ruggiero Cavallo and **Shaili Jain**. Efficient Crowdsourcing Contests. *Proceedings of the 11th International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)*, 2012.
6. **Shaili Jain** and David C. Parkes. Combinatorial Agency of Threshold Functions. *Proceedings of the Symposium on Algorithmic Game Theory (SAGT)*, 2011.

7. **Shaili Jain**, Yiling Chen, David C. Parkes. Designing Incentives for Online Question and Answer Forums. *Proceedings of the 10th ACM Conference on Electronic Commerce (EC)*, 2009.
8. **Shaili Jain** and David C. Parkes. The Role of Game Theory in Human Computation (Position Paper). *Proceedings of the Human Computation Workshop (HCOMP)*, 2009, (held in conjunction with KDD 2009).
9. Giacomo Corbo, **Shaili Jain**, Michael Mitzenmacher, David C. Parkes. An Economically-Principled Generative Model of AS Graph Connectivity. *Proceedings of the IEEE INFOCOM*, 2009.
10. **Shaili Jain** and David C. Parkes. A Game-Theoretic Analysis of Games with a Purpose. *Proceedings of the 4th International Workshop on Internet and Network Economics (WINE)*, 2008.
11. Adam L. Buchsbaum, Alon Efrat, **Shaili Jain**, Suresh Venkatasubramanian and Ke Yi. Restricted Strip Covering and the Sensor Cover Problem. *Proceedings of the ACM-SIAM Symposium on Discrete Algorithms (SODA)*, 2007.
12. Ramesh Agarwal, Suchitra Amalapurapu, **Shaili Jain**. An Approximation to the Greedy Algorithm for Differential Compression of Very Large Files. *Proceedings of the Data Compression Conference (DCC)*, 2004.

## WORKSHOP PRESENTATIONS

1. Ruggiero Cavallo and **Shaili Jain**. Winner-Take-All Crowdsourcing Contests with Stochastic Production. Presented at *Workshop on Social Computing and User Generated Content* (held in conjunction with ACM EC 2012).
2. Ruggiero Cavallo and **Shaili Jain**. Efficient Crowdsourcing with Stochastic Production. Presented at the *AAAI Spring Symposium on the Wisdom of the Crowds*, 2012.
3. **Shaili Jain** and David C. Parkes. Combinatorial Agency of Threshold Functions. Presented at the *Workshop on Social Computing and User Generated Content*, 2011, (held in conjunction with ACM Conference on E-Commerce, EC '11).
4. Giacomo Corbo, **Shaili Jain**, Michael Mitzenmacher, David C. Parkes. An Economically-Principled Generative Model of AS Graph Connectivity. Presented at the *Joint Workshop on the Economics of Networked Systems and Incentive-Based Computing (NetEcon+IBC)*, 2007, (held in conjunction with ACM Conference on E-Commerce, EC '07).

## SERVICE

- **Program Committees:** Workshop on Computational Social Science and Wisdom of the Crowds (held in conjunction with NIPS 2010), ACM EC 2012, AAAI 2013, WWW 2013, AAMAS 2014, AAAI 2014
- **Journal Reviewing:** Anonymous Referee for: ACM Transactions on Internet Technology, ACM Transactions on Economics and Computation (ACM TEAC), SIAM Journal of Computing (SICOMP), Theoretical Computer Science (TCS), Information Processing and Management

(IPM), ACM Transactions on Information Systems and Technology (ACM TIST)

- **Conference Reviewing:** Anonymous Referee for: NIPS 2011, SAGT 2011, AAAI 2011, SAGT 2010, WWW 2009, WWW 2008, EC 2008, DCOSS 2005

## **AWARDS AND HONORS**

- NSF CRA Computing Innovation Fellowship (CIFellowship), 2010-2012
- NSF Graduate Research Fellowship, 2004
- AT&T Labs Fellowship, 2004
- Bell Labs Graduate Research Fellowship (declined), 2004
- University of Michigan Mathematics Department Outstanding Achievement Award, 2004
- Barry M. Goldwater Scholar, 2002 - 2004
- University of Michigan EECS Department Senior Scholar, 2002
- University of Michigan Engineering Scholarship of Honor, 2000-2004
- University of Michigan Mathematics Department Scholarship, 2000-2004
- Robert C. Byrd Honors Scholarship, 2000-2004