

Shikha Singh

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EDUCATION

- Stony Brook University**, New York 2013–2018
PhD Candidate in Computer Science,
Advisors: Prof. Michael Bender and Prof. Jing Chen
- Indian Institute of Technology**, Kharagpur 2008–2013
Integrated MSc. in Mathematics and Computing,
Advisor: Prof. Pratima Panigrahi

PROFESSIONAL EXPERIENCE

- Assistant Professor**, Williams College, Williamstown 2019–Present
- Assistant Professor**, Wellesley College, Wellesley 2018–2019
- Research Assistant**, Stony Brook University, Stony Brook 2014–2018
- Chateaubriand Fellow**, University of Évry Val d'Essonne, France Oct–Feb 2016
- Visiting Researcher**, Max-Planck-Institute Saarbrücken, Germany Aug–Oct 2015
- Research Intern**, Xerox Research Center India, Bangalore June–Aug 2014
- Technical Intern**, Yahoo! Software Development, Bangalore, India May–July 2012

TEACHING EXPERIENCE

- Assistant Professor**, Williams College 2019–Present
Algorithm Design and Analysis, Fall 2019
Introduction to Computer Science, Spring 2020
- Assistant Professor**, Wellesley College 2018–2019
Languages and Automata, Fall 2018
Introduction to Programming and Problem Solving, Spring 2019
- Substitute Lecturer**, Stony Brook University, New York Aug–Sep 2014
Graduate Theory of Computation, Fall 2014
- Teaching Assistant**, Stony Brook University 2013–2014
Graduate Theory of Computation, Fall 2014
Undergraduate Analysis of Algorithms, Fall 2013 & Spring 2014

FELLOWSHIPS AND GRANTS

John Marburger III Fellowship for Science, Engineering, and Mathematics <i>Graduate school award, in the amount of \$5,000, offered by Stony Brook University</i>	2017
Chateaubriand Fellowship (STEM) <i>Offered by the Embassy of France in the U.S. to conduct research in France</i>	2015–2016
Renaissance Technology Fellowship , Stony Brook University <i>3-year grant offered to one outstanding incoming CS PhD student each year</i>	2013–2016
Stony Brook Computer Science Fellowship	2013–2014
Innovation in Science Pursuit for Inspired Research Scholarship <i>Offered to top 1% of the students pursuing sciences in India</i>	2008–2013

PUBLICATIONS IN CONFERENCE PROCEEDINGS

Non-Cooperative Rational Interactive Proofs European Symposium on Algorithms J. Chen, S. McCauley, and S. Singh	ESA 2019
Bloom Filters, Adaptivity, and the Dictionary Problem Foundations of Computer Science M. A. Bender, M. Farach-Colton, M. Goswami, R. Johnson, S. McCauley, and S. Singh	FOCS 2018
Efficient Rational Proofs with Strong Utility-Gap Guarantees Symposium on Algorithmic Game Theory J. Chen, S. McCauley, and S. Singh	SAGT 2018
Approximating k-Forest with Resource Augmentation <i>Conference on Combinatorial Optimization and Applications</i> E. Angel, K. T. Nguyen, and S. Singh (Best Paper Runner-Up Award)	COCOA 2017
Anti-Persistence on Persistent Storage <i>Principles of Database Systems</i> M. A. Bender, J. Berry, R. Johnson, T. M. Kroger, S. McCauley, C. A. Phillips, B. Simon, S. Singh, and D Zage	PODS 2016
Rational Proofs with Multiple Provers <i>Innovations in Theoretical Computer Science</i> J. Chen, S. McCauley, and S. Singh	ITCS 2016
Resource Optimization for Program Committee Members <i>Fun with Algorithms</i> M. A. Bender, S. McCauley, B. Simon, S. Singh, and F. Vivien	FUN 2016
The I/O Complexity of Computing Prime Tables <i>Latin American Theoretical Informatics Symposium</i> M. A. Bender, R. Chowdhury, A. Conway, M. Farach-Colton, P. Ganapathi, R. Johnson, S. McCauley, B. Simon, and S. Singh	LATIN 2016
Run Generation Revisited: What Goes Up May or May Not Come Down <i>International Symposium on Algorithms and Computation</i> M. A. Bender, S. McCauley, A. McGregor, S. Singh, and H. Vu	ISAAC 2015

PROFESSIONAL SERVICE

Program Committee Member, Symposium on Simplicity in Algorithms (SOSA) 2020
Panelist, NSF Grant Review Panel 2019

INVITED TALKS

Weizmann Institute of Technology, Israel July 2019
Non-Cooperative Rational Proofs

Bar-Ilan University, Israel June 2019
The Online Event Detection Problem

Indian Institute of Technology, Kanpur May 2019
Exact Heavy-hitters in External Memory

Rutgers University, New Jersey Feb 2019
Bloom Filters, Adaptivity and the Dictionary Problem

Max-Planck-Institute Saarbrucken, Germany Aug 2015
Rational Proofs

LIP6, Sorbonne University, Paris Feb 2016
Competitive Analysis of Online and Offline Sorting with a Buffer

GRADUATE STUDENT SERVICE

Member, Diversity and Inclusion Sub-committee, Wellesley College 2018–2019

President, Graduate Women in Science and Engineering, SBU 2017–2018

Vice President, Graduate Women in Science and Engineering, SBU 2016–2017

Web Admin, Women in PhD, Computer Science, SBU 2016–2017

Student Rep, Graduate Curriculum Committee, Computer Science, SBU 2016–2018