

Lev Reyzin

Mathematics, Statistics, & Computer Science
University of Illinois at Chicago (UIC)
851 South Morgan St., Chicago, IL 60607

work phone: (312)-413-3745
lreyzin@math.uic.edu
www.levreyzin.com

Education

Yale University, New Haven, CT

Ph.D. (December 2009) in Computer Science

– dissertation title: “*Active Learning of Interaction Networks*,” advised by Dana Angluin

M.Phil. (December 2008) in Computer Science

M.S. (December 2006) in Computer Science

Princeton University, Princeton, NJ

B.S.E. (May 2005) with honors in Computer Science

Certificate (May 2005) in Applied and Computational Mathematics

Employment

University of Illinois at Chicago, Chicago, IL

2017–present: Associate Professor (with tenure), Department of Mathematics, Statistics, and
Computer Science; Associate Professor (by courtesy), Department of Computer Science

2012–2017: Assistant Professor, Department of Mathematics, Statistics, and Computer Science;
Assistant Professor (by courtesy), Department of Computer Science

Georgia Institute of Technology, Atlanta, GA

2010–2012: Postdoctoral Fellow, ARC Center and School of Computer Science

– hosted by Santosh Vempala

Yahoo! Research, New York, NY

2009–2010: Postdoctoral Research Scientist, Machine Learning Group

– hosted by John Langford

Google, Mountain View, CA

2006, 2007: Summer Research and Engineering Intern, Google Research

– hosted by David ‘Pablo’ Cohn and Yoram Singer

Selected awards, fellowships, and grants

Grants

2015–2018: NSF Award [IIS-1526379](#) (co-PI, with Brian Ziebart as PI, \$500,000)

“*RI: Small: Robustly Optimizing General Loss Functions with Application to Active Learning*”

2015–2016: ARO Award 66497-NS (sole PI, \$49,700)

“*Learning and Inferring Networks from Incomplete Data*”

Fellowships

2010–2012: Simons Postdoctoral Fellowship in Theoretical Computer Science

2009–2010: NSF Computing Innovation Postdoctoral Fellowship

2007–2009: NSF Graduate Research Fellowship

Awards for work

2012 Georgia Tech’s College of Computing Outstanding Postdoctoral Research Award

2011 AISTATS Notable Paper Award

2009 Yale’s Nominee for the ACM Doctoral Dissertation Award

2007 COLT Best Student Paper Award

2006 ICML Best Student Paper Award and named one of three Outstanding Papers

Papers¹

Preprints

- [P1] Shelby Heinecke, Will Perkins, Lev Reyzin. [On the Resilience of Bipartite Networks](#). Manuscript, *arXiv:1306.5720v2*, 2018.
- [P2] Benjamin Fish, Lev Reyzin, Benjamin I. P. Rubinstein. [Sublinear-Time Adaptive Data Analysis](#). Manuscript, *arXiv:1709.09778*, 2017.
- [P3] Daniel Berend, Aryeh Kontorovich, Lev Reyzin. [Probably Approximate Learning under Adversarial Design](#). Manuscript, 2015.

Journal publications

- [J1] Sam Cole, Shmuel Friedland, Lev Reyzin. [A Simple Spectral Algorithm for Recovering Planted Partitions](#). In *Special Matrices*, Volume 5, Issue 1, 2017, pp. 139–157.
- [J2] Vitaly Feldman, Elena Grigorescu, Lev Reyzin, Santosh Vempala, Ying Xiao. [Statistical Algorithms and a Lower Bound for Planted Clique](#). In the *Journal of the ACM*, Volume 64, Issue 2, 2017, pp. 8:1–8:37.
- [J3] Alexander Gutfraind, Jeremy Kun, Ádám D. Lelkes, Lev Reyzin. [Network Installation under Convex Costs](#). In the *Journal of Complex Networks*, Volume 4, Issue 2, 2016, pp. 177–186.
- [J4] Dana Angluin, James Aspnes, Lev Reyzin. [Network Construction with Subgraph Connectivity Constraints](#). In the *Journal of Combinatorial Optimization*, Volume 29, Issue 2, 2015, pp. 418–432.
- [J5] Shalev Ben-David, Lev Reyzin. [Data Stability in Clustering: A Closer Look](#). In the ALT 2012 Special Issue of *Theoretical Computer Science*, Volume 558, 2014, pp. 51–61.
- [J6] Dana Angluin, James Aspnes, Lev Reyzin. [Optimally Learning Social Networks with Activations and Suppressions](#). In the ALT 2008 Special Issue of *Theoretical Computer Science*, Volume 411, Issues 29–30, 2010, pp. 2729–2740.
- [J7] Dana Angluin, James Aspnes, Jiang Chen, David Eisenstat, Lev Reyzin. [Learning Acyclic Probabilistic Circuits Using Test Paths](#). In the *Journal of Machine Learning Research*, Volume 10, 2009, pp. 1881–1911.

¹As is customary in theoretical computer science, the author ordering on all of my published papers is alphabetical.

- [C14] Vitaly Feldman, Elena Grigorescu, Lev Reyzin, Santosh Vempala, Ying Xiao. [Statistical Algorithms and a Lower Bound for Planted Clique](#). In the *Proceedings of the 45th ACM Symposium on the Theory of Computing (STOC)*, 2013, pp. 655–664. (41 p. on arXiv)
- [C15] Lev Reyzin. [Data Stability in Clustering: A Closer Look](#). In the *Proceedings of the 23rd International Conference on Algorithmic Learning Theory (ALT)*, 2012, pp. 184–198. Invited to a special issue of *Theoretical Computer Science*.
- [C16] Miroslav Dudik, Daniel Hsu, Satyen Kale, Nikos Karampatziakis, John Langford, Lev Reyzin, Tong Zhang. [Efficient Optimal Learning for Contextual Bandits](#). In the *Proceedings of the 27th Conference on Uncertainty in Artificial Intelligence (UAI)*, 2011, pp. 169–178. (20 p. on arXiv)
- [C17] Lev Reyzin. [Boosting on a Budget: Sampling for Feature-Efficient Prediction](#). In the *Proceedings of the 28th International Conference on Machine Learning (ICML)*, 2011, pp. 529–536.
- [C18] Elena Grigorescu, Lev Reyzin, Santosh Vempala. [On Noise-Tolerant Learning of Sparse Parities and Related Problems](#). In the *Proceedings of the 22nd International Conference on Algorithmic Learning Theory (ALT)*, 2011, pp. 413–424.
- [C19] Wei Chu, Lihong Li, Lev Reyzin, Robert E. Schapire. [Contextual Bandits with Linear Payoff Functions](#). In the *Proceedings of the 14th International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2011, pp. 208–214.
- [C20] Alina Beygelzimer, John Langford, Lihong Li, Lev Reyzin, Robert E. Schapire. [Contextual Bandit Algorithms with Supervised Learning Guarantees](#).³ In the *Proceedings of the 14th International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2011, pp. 19–26. (10 p. on arXiv)
- [C21] Satyen Kale, Lev Reyzin, Robert E. Schapire. [Non-Stochastic Bandit Slate Problems](#). In the *Proceedings of the 24th Annual Conference on Neural Information Processing Systems (NIPS)*, 2010, pp. 1045–1053. (12 p. with supplement)
- [C22] Dana Angluin, David Eisenstat, Leonid Kontorovich, Lev Reyzin. [Lower Bounds on Learning Random Structures with Statistical Queries](#). In the *Proceedings of the 21st International Conference on Algorithmic Learning Theory (ALT)*, 2010, pp. 194–208.
- [C23] Dana Angluin, James Aspnes, Lev Reyzin. [Inferring Social Networks from Outbreaks](#). In the *Proceedings of the 21st International Conference on Algorithmic Learning Theory (ALT)*, 2010, pp. 104–118.
- [C24] Dana Angluin, Leonor Becerra-Bonache, Adrian Horia Dediu, Lev Reyzin. [Learning Finite Automata Using Label Queries](#). In the *Proceedings of the 20th International Conference on Algorithmic Learning Theory (ALT)*, 2009, pp. 171–185.
- [C25] Dana Angluin, James Aspnes, Jiang Chen, David Eisenstat, Lev Reyzin. [Learning Acyclic Probabilistic Circuits Using Test Paths](#). In the *Proceedings of the 21st Annual Conference on Learning Theory (COLT)*, 2008, pp. 169–179.
- [C26] Dana Angluin, James Aspnes, Lev Reyzin. [Optimally Learning Social Networks with Activations andSuppressions](#). In the *Proceedings of the 19th International Conference on Algorithmic Learning Theory (ALT)*, 2008, pp. 272–286. Invited to a special issue of *Theoretical Computer Science*.
- [C27] Dana Angluin, James Aspnes, Jiang Chen, Lev Reyzin. [Learning Large-Alphabet and Analog Circuits with Value Injection Queries](#).⁴ In the *Proceedings of the 20th Annual Conference on Learning Theory (COLT)*, 2007, pp. 51–65. Invited to a special issue of *Machine Learning*.
- [C28] Lev Reyzin, Nikhil Srivastava. [Learning and Verifying Graphs Using Queries with a Focus on Edge Counting](#). In the *Proceedings of the 18th International Conference on Algorithmic Learning Theory (ALT)*, 2007, pp. 285–297.

³AISTATS 2011 notable paper.

⁴COLT 2007 best student paper.

- [C29] Lev Reyzin, Robert E. Schapire. [How Boosting the Margin Can Also Boost Classifier Complexity](#).⁵ In the *Proceedings of the 23rd International Conference on Machine Learning (ICML)*, 2006, pp. 753–760.

Workshop papers

- [W1] Benjamin Fish, Lev Reyzin, Benjamin I. P. Rubinstein. [Sublinear-Time Adaptive Data Analysis](#). In the *Electronic Proceedings of the 15th International Symposium on Artificial Intelligence and Mathematics (ISAIM)*, 2018, 8 p.
- [W2] Benjamin Fish, Yi Huang, Lev Reyzin. [Recovering Social Networks by Observing Votes](#). In the *Electronic Proceedings of the 14th International Symposium on Artificial Intelligence and Mathematics (ISAIM)*, 2016, 9 p.
- [W3] Jeff Cooper, Lev Reyzin. [Improved Algorithms for Distributed Boosting](#). In the *NIPS Workshop on Distributed Machine Learning and Matrix Computations (NIPSw)*, 2014, 9 p.
- [W4] Lev Reyzin. [On Boosting Sparse Parities](#). In the *Electronic Proceedings of the 13th International Symposium on Artificial Intelligence and Mathematics (ISAIM)*, 2014, 7 p.
- [W5] Yi Huang, Brian Powers, Lev Reyzin. [Training-Time Optimization of a Budgeted Booster](#). In the *NIPS Workshop on Resource-Efficient Machine Learning (NIPSw)*, 2013, 4 p.
- [W6] Miroslav Dudik, Daniel Hsu, Satyen Kale, Nikos Karampatziakis, John Langford, Lev Reyzin, Tong Zhang. [Efficient Optimal Learning for Contextual Bandits](#). In the *ICML Workshop on Online Trading off Exploration and Exploitation 2 (ICMLw)*, 2011, 8 p.
- [W7] Alina Beygelzimer, Satyen Kale, Nikos Karampatziakis, John Langford, Lev Reyzin. [Aggressive Learning for Contextual Bandits](#). In the *Snowbird Learning Workshop (Snowbird)*, 2011, 2 p.
- [W8] Lev Reyzin. [Boosting on a Feature Budget](#). In the *ICML/COLT Workshop on Budgeted Learning (ICMLw)*, 2010, 5 p.
- [W9] Lev Reyzin. [2 Player Tetris is PSPACE Hard](#). In the *Abstracts of the 16th Annual Fall Workshop on Computational Geometry (FWCG)*, 2006, 2 p.

Miscellaneous

- [M1] Lev Reyzin. [A Review of Famous Puzzles of Great Mathematicians](#) by Miodrag S. Petković. In *SIGACT News, Volume 42, Issue 3*, September 2011, pp. 36–39.
- [M2] Dave Clarke, David Eppstein, Kaveh Ghasemloo, Lev Reyzin, András Salamon, Peter Shor, Aaron Sterling, Suresh Venkatasubramanian. [Questions Answered. In Theory](#). In *SIGACT News, Volume 41, Issue 4*, December 2010, pp. 58–60.
- [M3] Lev Reyzin. [Lower Bounds on the VC Dimension of Unions of Concept Classes](#). *Yale University Technical Report 1349 YALEU/DCS/TR-1349*, April 2006, 12 p.

Volumes edited

- [E1] Steve Hanneke, Lev Reyzin (eds.), ALT 2017 in *Proceedings of Machine Learning Research, Volume 76*, (PMLR), 2017, 680p. (cf. [Algorithmic Learning Theory: Preface](#), pp. 1–2.)
- [E2] Lisa Hellerstein, Lev Reyzin, György Turán (eds.), ISAIM 2014 Special Issue of *Annals of Mathematics and Artificial Intelligence, Volume 79, Issues 1–3* (AMAI), 2017, 266 p. (cf. [Forward](#), pp. 1–3.)

⁵ICML 2006 best student paper.

Dissertation

- [D] Lev Reyzin. *Active Learning of Interaction Networks*. *Yale University Doctoral Dissertation*, December 2009, 156 p.

Teaching

University of Illinois at Chicago, Chicago, IL

- Instructor, CS/MCS 401: Computer Algorithms I (Fall 2018, Fall 2017, Spring 2017, Fall 2016, Spring 2016)
- Instructor, MCS 548: Mathematical Theory of Artificial Intelligence (Fall 2018, Fall 2016, Fall 2014)
- Instructor, MCS 441: Theory of Computation I (Spring 2018, Spring 2016, Spring 2014, Spring 2013)
- Instructor, MCS 590: Mathematical Foundations of Data Science (Fall 2017, Spring 2015)
- Instructor, MCS 521: Combinatorial Optimization (Fall 2013)

Georgia Institute of Technology, Atlanta, GA

- Co-Instructor, CS 8803/MATH 8833: Discrete Fourier Analysis & Applications (Spring 2012)

Yale University, New Haven, CT

- Teaching Fellow, CPSC 463/563: Machine Learning (Spring 2009)
- Teaching Fellow, CPSC 365: Design and Analysis of Algorithms (Spring 2007, Spring 2008)
- Teaching Fellow, CPSC 202: Mathematical Tools for Computer Science (Fall 2006, Fall 2008)

Princeton University, Princeton, NJ

- Lab Teaching Assistant for COS 126: Introduction to Computer Science, COS 217: Introduction to Programming Systems, and COS 226: Data Structures and Algorithms (Fall 2003–Spring 2005)

Mentoring and advising

Postdoctoral mentoring

- Li Wang. RAP, UIC Mathematics, Statistics, & Computer Science, 2015 – 2017
 - first/current position: Assistant Professor of Mathematics, UT Arlington, Arlington, TX
 - research interests: optimization, mathematical programming, tensors, large-data problems

Ph.D. student advising

- Shelby Heinecke. UIC Mathematics, Ph.D. in progress (co-advised with Tanya Berger-Wolf)
- Mano Vikash Janardhanan. UIC Mathematics, Ph.D. in progress
- Benjamin Fish. UIC Mathematics, Ph.D. 2018
 - first/current position: Postdoctoral Researcher at Microsoft Research, Montréal, Canada
 - dissertation title: “*New Models and Algorithms for Data Analysis*”
- Yi Huang. UIC Mathematics, Ph.D. 2017
 - first/current position: Postdoctoral Scholar in Medicine at the University of Chicago, Chicago, IL
 - dissertation title: “*Problems in Learning under Limited Resources and Information*”

- Ádám D. Lelkes. UIC Mathematics, Ph.D. 2017 (co-advised with György Turán)
 - first and current position: Software Engineer at Google Research, New York, NY
 - dissertation title: “*Algorithms and Complexity Results for Learning and Big Data*”
- Jeremy Kun. UIC Mathematics, Ph.D. 2016
 - current position: Software Engineer at Google, Mountain View, CA
 - first position: Data Scientist at 21 Inc., San Francisco, CA
 - dissertation title: “*Graphs, New Models, and Complexity*”

Master’s student advising

- Manasvi Kumar. UIC Mathematics, M.S. in progress
- Samantha Davies. UIC Mathematics, M.S. 2016
 - continued to a Ph.D. at the University of Washington

Undergraduate honors thesis supervision

- Jasmine Otto. UIC Mathematics and Computer Science, B.S. 2015
 - continued to an M.S. at UIC and then to a Ph.D. at UC Santa Cruz
 - honors thesis title: “*Approaches to Modeling a Predator-Prey System in 2D Space*”

Ph.D. committee memberships or equivalent (not as advisor)

- Rizal Fathony. UIC Computer Science, Ph.D. in progress (advisor: Brian Ziebart)
- Anqi Liu. UIC Computer Science, Ph.D. in progress (advisor: Brian Ziebart)
- Lujia Wang. UIC Mathematics, Ph.D. in progress (advisor: Dhruv Mubayi)
- Alex Cameron. UIC Mathematics, Ph.D. 2018 (advisors: György Turán and Dhruv Mubayi)
- Sam Cole. UIC Mathematics, Ph.D. 2018 (advisor: Shmuel Friedland)
- Nathan Bliss. UIC Mathematics, Ph.D. 2018 (advisor: Jan Verschelde)
- Jeff Sommars. UIC Mathematics, Ph.D. 2018 (advisor: Jan Verschelde)
- Anooshiravan Sharabiani. UIC Industrial Engineering, Ph.D. 2017 (advisor: Houshang Darabi)
- John Hardwick. UIC Mathematics, Ph.D. 2017 (advisor: T.E.S. Raghavan)
- Matthew Monfort. UIC Computer Science, Ph.D. 2016 (advisor: Brian Ziebart)
- Brian Powers. UIC Mathematics, Ph.D. 2016 (advisor: T.E.S. Raghavan)
- Roi Weiss. BGU Computer Science, Ph.D. 2015 (advisor: Aryeh Kontorovich)
- Xiangcheng Yu. UIC Mathematics, Ph.D. 2015 (advisor: Jan Verschelde)
- Jeffrey Cooper. UIC Mathematics, Ph.D. 2014 (advisor: Dhruv Mubayi)
- Randall Stading. UIC Mathematics, Ph.D. 2014 (advisor: Dhruv Mubayi)
- Dimitris Diochnos. UIC Mathematics, Ph.D. 2013 (advisor: György Turán)
- Habiba Habiba. UIC Computer Science, Ph.D. 2013 (advisor: Tanya Berger-Wolf)

Lectures and talks

Selected invited talks

1. Conference on Statistical Learning and Data Science, Columbia University, New York, NY, 2018
2. Invited talk, Information Theory and Applications, San Diego, CA, 2018
3. Applied mathematics colloquium, Illinois Institute of Technology, Chicago, IL, 2017
4. Invited talk, Midwest Machine Learning Symposium, Chicago, IL, 2017
5. Mathematics colloquium, University of Illinois at Chicago, Chicago, IL, 2017
6. Invited talk, Recent Advances and Applications in ML, CCASA Conference, Chicago, IL, 2017
7. Invited talk, Information Theory and Applications, San Diego, CA, 2017
8. Invited talk, Data Science Talks, University of Illinois at Chicago, Chicago, IL, 2016
9. Invited talk, Foundations of Unsupervised Learning, Schloss Dagstuhl, Wadern, Germany, 2016
10. Invited talk, Information Theory and Applications, San Diego, CA, 2016
11. Theory seminar, Northwestern University, Evanston, IL, 2015
12. TTI-C colloquium, Toyota Technological Institute – Chicago, Chicago, IL, 2015
13. Mathematics and computer science colloquium, Emory University, Atlanta, GA, 2015
14. Computer science seminar, Georgetown University, Washington, DC, 2015
15. Invited talk, Information Theory and Applications, San Diego, CA, 2015
16. Computer science colloquium, University of Arizona, Tucson, AZ, 2014
17. Invited talk, GraphEx Symposium, Dedham, MA, 2014
18. Invited talk, Yahoo! Labs, New York, NY, 2014
19. Mathematics and computer science colloquium, Emory University, Atlanta, GA, 2014
20. Invited talk, Information Theory and Applications, San Diego, CA, 2014
21. Seminar, Microsoft Research, New York, NY, 2013
22. Invited plenary talk, Undergraduate Mathematics Symposium, Chicago, IL, 2013
23. Mathematics colloquium, University of Illinois at Chicago, Chicago, IL, 2013
24. Invited plenary talk, Chicago Area SIAM Student Conference, Chicago, IL 2013
25. Machine learning seminar, Toyota Technological Institute – Chicago, Chicago, IL, 2013
26. Seminar, Microsoft Research, New York, NY, 2012
27. AI seminar, University of Alberta, Edmonton, Canada, 2012
28. Invited talk, Simons Postdoctoral Fellows Meeting, Stony Brook, NY, 2012
29. Tech talk, Google Research, Mountain View, CA, 2012
30. Seminar, MIT Lincoln Labs, Lexington, MA, 2012
31. Machine learning lunch talk, Carnegie Mellon University, Pittsburgh, PA, 2012
32. Computer science colloquium, College of William & Mary, Williamsburg, VA, 2012
33. Seminar, Alcatel-Lucent Bell Labs, Murray Hill, NJ, 2012
34. Mathematics colloquium, University of Illinois at Chicago, Chicago, IL, 2012
35. Seminar, Sandia National Labs, Livermore, CA, 2011
36. PRiML seminar, University of Pennsylvania, Philadelphia, PA, 2011

37. Theory seminar, Yale University, New Haven, CT, 2011
38. ARC colloquium, Georgia Institute of Technology, Atlanta, GA, 2011
39. Computer science colloquium, Ben Gurion University, Beersheba, Israel, 2010
40. ARC colloquium, Georgia Institute of Technology, Atlanta, GA, 2010
41. Seminar, Santa Fe Institute, Santa Fe, NM, 2010
42. Theory lunch talk, IBM T.J. Watson Research Center, Yorktown Heights, NY, 2010
43. Seminar, Yahoo! Research, New York, NY, 2008
44. Machine learning lunch talk, University of Massachusetts Amherst, MA, 2007
45. Machine learning symposium talk, NY Academy of Sciences, New York, NY, 2006
46. Machine learning reading group, Princeton University, Princeton, NJ, 2006

Contributed conference and workshop lectures

47. Allerton Conference on Communication, Control, and Computing, Monticello, IL, 2017
48. International Conference on Artificial Intelligence, Quebec City, Canada, 2014
49. International Symposium on Artificial Intelligence and Mathematics, Ft. Lauderdale, FL, 2014
50. International Conference on Algorithmic Learning Theory, Lyon, France, 2012
51. International Conference on Machine learning, Bellevue, WA, 2011
52. International Conference on Algorithmic Learning Theory, Aalto, Finland, 2011
53. International Conference on Artificial Intelligence and Statistics, Ft. Lauderdale, FL, 2011
54. Budgeted Learning Workshop at the Conference on Machine Learning, Haifa, Israel, 2010
55. International Conference on Algorithmic Learning Theory, Canberra, Australia, 2010
56. International Conference on Algorithmic Learning Theory, Porto, Portugal, 2009
57. International Conference on Learning Theory, Helsinki, Finland, 2008
58. International Conference on Algorithmic Learning Theory, Budapest, Hungary, 2008
59. International Conference on Learning Theory, San Diego, CA, 2007
60. Fall Workshop on Computational Geometry, Northampton, MA, 2006
61. International Conference on Machine Learning, Pittsburgh, PA, 2006

Tutorials given

62. International Conference on Algorithmic Learning Theory, Lanzarote, Spain, 2018

Professional activities

Reviewing and editorial work

– Journals

- board: associate editor of *Annals of Mathematics and Artificial Intelligence* (2016–present)
- guest editor: ALT 2017 special issue in *Theoretical Computer Science*, ISAIM 2014 special issue in *Annals of Mathematics and Artificial Intelligence*

- referee: *Journal of Machine Learning Research*, *Machine Learning Journal*, *IEEE Transactions on Neural Networks*, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, *IEEE Neural Networks and Learning Systems*, *Artificial Intelligence Journal*, *Journal of the ACM*, *Algorithmica*, *ACM Transactions on Algorithms*, *Theoretical Computer Science*, *Journal of Combinatorial Optimization*, *SIAM Journal on Discrete Mathematics*, *SIAM Journal on Computing*, *Discrete Applied Mathematics*, *Operations Research Letters*, *Optimization Letters*, *Distributed Computing*, *Journal of the American Statistical Association*, *Entropy*, *WIREs Computational Statistics*
- Conferences
 - steering committee member: ALT, 2016–2020 (ex-officio 2016-2017 as PC co-chair), ISAIM 2014–present (ex officio as AMAI associate editor)
 - local (co-)chair: ALT 2019
 - program committee (co-)chair: ALT 2017
 - program committee member (m = main/senior pc; e = extended pc or equiv.): NIPS 2018 (e), RANDOM 2018 (m), AAMAS 2018 (e), AISTATS 2018 (e), AAAI 2018 (m), AAAI 2017 (e), NIPS 2016 (e), ICML 2016 (e), AISTATS 2016 (e), AAAI 2016 (e), IJCAI 2015 (e), ALT 2015 (m), ICML 2015 (e), NIPS 2014 (e), ALT 2014 (m), ICML 2014 (e), IJCAI 2013 (e), ALT 2013 (m), ICML 2013 (e), ICML 2012 (e), ALT 2012 (m), NIPS 2011 (e), ICML 2010 (e), NIPS 2010 (e)
 - referee: COLT 2018, COCOON 2017, COLT 2017, AISTATS 2017, ALT 2016, COLT 2016, STOC 2016, SODA 2016, FOCS 2015, COLT 2015, ICALP 2015, AISTATS 2015, AAAI 2015, ESA 2014, FOCS 2014, STACS 2014, MFCS 2013, ICALP 2013, ITCS 2013, SODA 2013, MFCS 2012, FOCS 2012, COLT 2012, ITCS 2012, ICML 2011, ESA 2011, COLT 2011, EC 2011, COLT 2010, ALT 2009, COLT 2009, STOC 2008
- Workshops
 - organization: ISAIM 2018 “Theory of Machine Learning” special session organizer and chair, ISAIM 2014 “Theory of Machine Learning” special session organizer and chair
 - program committee member: SIAM Network Science 2016
- Grant reviewing
 - panel member: NSF, Information and Intelligent Systems (IIS), 2017
 - external reviewer: DHS, Centers of Excellence (COE), 2016
 - panel member: NSF, Communications and Foundations (CCF), 2015
- Other
 - book proposal reviewer: Cambridge University Press, 2017
 - external reviewer: British Computer Society, Distinguished Dissertation Award, 2017

Professional memberships

- ACM/SIGACT: professional member (2009–present), student member (2007–2009)
- AAAI: member (2014–present)
- Sigma Xi: full member (2010–present), associate member (2005–2010)
- Consortium for Modeling & Analysis of Treatments and Interventions: member (2013–present)

Institutional service

- UIC college/university service: committee on data sciences and social sciences (2018–present), faculty senate (2017–present), reviewer for chancellor’s graduate fellowship (2012)

- UIC departmental service as chair, secretary, or equivalent: chair of the MCS faculty search committee (2017–2018), MCS program director for purposes of evaluating student outcomes (2015–present), chair of the MCS committee (2015–present), secretary of the advisory committee (2014–2016), responsible for redesign of MCS major (2012–2014)
- UIC departmental service: MCS committee (2012–present), tenure-track faculty search committee (2016–2018; 2017–2018 on the MCS search committee, 2016–2017 on the statistics search committee), graduate admissions and fellowships committee (2017–2018, 2012–2015), undergraduate studies committee (2016–2018), graduate mentoring award committee (2016–2017), advisory committee (2014–2016), salary committee (2015–2016), research assistant professor search committee (2013–2015), MCS master’s exam coordinator (2013–2015)
- Seminar (co-)organization: UIC MCS seminar (2013–present), UIC machine learning seminar (2012–2013), Yale graduate student computer science theory colloquium (2007–2008)

Other

- cstheory.stackexchange.com, moderator (2014–present)