

# JONATHAN ULLMAN

Curriculum Vitae  
September 2020

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## RESEARCH GOALS

My research is about how to use data *robustly*, *reliably*, and *responsibly*. I aim to build firm foundations for the field, but with a focus on the questions that will be critical for real-world systems, which I study using a mix of tools from algorithms, cryptography, security, machine learning, and statistics.

## EDUCATION

- Doctor of Philosophy in Computer Science** 08/2009 – 06/2013  
Harvard University School of Engineering and Applied Science  
Thesis Title: *Privacy and the Complexity of Simple Queries*  
Thesis Advisor: Salil P. Vadhan
- Bachelor of Science and Engineering in Computer Science** 08/2004 – 05/2008  
Graduated *magna cum laude*

## EMPLOYMENT HISTORY

- Assistant Professor** 08/2015 – Current  
Khoury College of Computer and Information Sciences  
Northeastern University
- Junior Fellow** 07/2014 – 07/2015  
Simons Society of Fellows  
Host: Rocco Servedio, Columbia University
- Postdoctoral Fellow** 06/2013 – 06/2014  
Center for Research on Computation and Society  
Harvard University
- Research Intern** 08/2011 – 12/2011  
Microsoft Research SVC  
Host: Cynthia Dwork

## HONORS AND AWARDS

- NSF CAREER Award** 02/2018  
Project Title: *A Stable Foundation for Trustworthy Data Analysis*
- Ruth and Joel Spira Outstanding Teacher Award** 09/2019  
Awarded annually to a faculty member in the College of Computer Sciences
- Google Faculty Research Award** 02/2018  
Project Title: *Distributed Differential Privacy Beyond Local Protocols*

## PUBLICATIONS

### EXECUTIVE SUMMARY

Google Scholar Data (09/2020): 2,085 citations,  $h$ -index 25

### MANUSCRIPTS

- [1] Albert Cheu and Jonathan Ullman. The limits of pan privacy and shuffle privacy for learning and estimation. *arXiv preprint arXiv:2009.08000*, 2020. In Submission.

### CONFERENCE PUBLICATIONS (REVERSE CHRONOLOGICAL ORDER)

- [2] Albert Cheu, Adam Smith, and Jonathan Ullman. Manipulation attacks in local differential privacy. In *IEEE Security & Privacy, IEEE S&P '21*, San Francisco, CA, USA, 2021. IEEE.
- [3] Matthew Jagielski, Jonathan Ullman, and Alina Oprea. Auditing differentially private machine learning: How private is private SGD? In *Annual Conference on Neural and Information Processing Systems, NeurIPS '20*, 2020. (authors by contribution).
- [4] Sourav Biswas, Yihe Dong, Gautam Kamath, and Jonathan Ullman. COINPRESS: Practical private mean and covariance estimation. In *Annual Conference on Neural and Information Processing Systems, NeurIPS '20*, 2020.
- [5] Clément L. Canonne, Gautam Kamath, Audra McMillan, Jonathan Ullman, and Lydia Zakynthinou. Private identity testing for high dimensional distributions. In *Annual Conference on Neural and Information Processing Systems, NeurIPS '20 Spotlight Presentation*, 2020.
- [6] Gautam Kamath, Vikrant Singhal, and Jonathan Ullman. Private mean estimation of heavy-tailed distributions. In *Annual Conference on Learning Theory, COLT '20*, pages 2204–2235, Vienna, Austria, 2020. PMLR.
- [7] Raef Bassily, Albert Cheu, Shay Moran, Aleksandar Nikolov, Jonathan Ullman, and Zhiwei Steven Wu. Private query release assisted by public data. In *International Conference on Machine Learning, ICML '20*, pages 6066–6074, Vienna, Austria, 2020. PMLR.
- [8] Alexander Edmonds, Aleksandar Nikolov, and Jonathan Ullman. The power of factorization mechanisms in local and central differential privacy. In *ACM Symposium on Theory of Computing, STOC '20*, pages 425–438, Chicago, IL, USA, 2020. ACM.
- [9] Huy Lê Nguyễn, Jonathan Ullman, and Lydia Zakynthinou. Efficient private algorithms for learning halfspaces. In *International Conference on Algorithmic Learning Theory, ALT '20*, pages 704–724, San Diego, CA, USA, 2020. PMLR.
- [10] Gautam Kamath, Or Sheffet, Vikrant Singhal, and Jonathan Ullman. Differentially private algorithms for learning mixtures of well separated gaussians. In *Annual Conference on Neural and Information Processing Systems, NeurIPS '19*, pages 168–180, Vancouver, Canada, 2019.
- [11] Adam Sealfon and Jonathan Ullman. Efficiently Estimating Erdős-Rényi Graphs with Node Differential Privacy. In *Annual Conference on Neural and Information Processing Systems, NeurIPS '19*, pages 3765–3775, Vancouver, BC, Canada, 2019.

- [12] Jeffrey Champion, Abhi Shelat, and Jonathan Ullman. Securely sampling biased coins with applications to differential privacy. In *ACM Conference on Computer and Communications Security*, CCS'19, pages 603–614, London, UK, 2019. ACM.
- [13] Matthew Jagielski, Michael Kearns, Jieming Mao, Alina Oprea, Aaron Roth, Saeed Sharifi-Malvajerdi, and Jonathan Ullman. Differentially private fair classification. In *International Conference on Machine Learning*, ICML'19, pages 3000–3008, Long Beach, CA, USA, 2019. PMLR.
- [14] Gautam Kamath, Jerry Li, Vikrant Singhal, and Jonathan Ullman. Privately learning high dimensional distributions. In *Annual Conference on Learning Theory*, COLT '19, pages 1853–1902, Phoenix, AZ, USA, 2019. PMLR.
- [15] Clément Canonne, Gautam Kamath, Audra McMillan, Adam Smith, and Jonathan Ullman. The structure of optimal private tests for simple hypotheses. In *ACM Symposium on the Theory of Computing*, STOC '19, pages 310–321, Phoenix, AZ, USA, 2019. ACM.
- [16] Albert Cheu, Adam Smith, Jonathan Ullman, David Zeber, and Maxim Zhilyaev. Distributed differential privacy via shuffling. In *Annual Conference on the Theory and Applications of Cryptographic Techniques*, EUROCRYPT '19, pages 375–403, Darmstadt, Germany, 2019. Springer.
- [17] Matthew Joseph, Aaron Roth, Jonathan Ullman, and Bo Waggoner. Local differential privacy for evolving data. In *Annual Conference on Neural and Information Processing Systems*, NeurIPS '18 Spotlight Presentation, pages 2381–2390, Montreal, Canada, 2018.
- [18] Kobbi Nissim, Adam Smith, Thomas Steinke, Uri Stemmer, and Jonathan Ullman. The limits of post-selection generalization. In *Annual Conference on Neural and Information Processing Systems*, NeurIPS '18, pages 6402–6411, Montreal, Canada, 2018.
- [19] Albert Cheu, Ravi Sundaram, and Jonathan Ullman. Skyline identification in multi-armed bandits. In *IEEE International Symposium on Information Theory*, ISIT '18, pages 1006–1010, Vail, CO, USA, 2018. IEEE.
- [20] Lucas Kowalczyk, Tal Malkin, Jonathan Ullman, and Daniel Wichs. Hardness of non-interactive differential privacy from one-way functions. In *Annual International Cryptology Conference*, CRYPTO '18, pages 437–466, Santa Barbara, CA, USA, 2018. Springer.
- [21] Thomas Steinke and Jonathan Ullman. Tight lower bounds for differentially private selection. In *IEEE Symposium on Foundations of Computer Science*, FOCS '17, pages 552–563, Berkeley, CA, USA, 2017. IEEE.
- [22] Piotr Indyk, Sepideh Mahabadi, Ronitt Rubinfeld, Jonathan Ullman, Ali Vakilian, and Anak Yodpinyanee. Fractional set cover in the streaming model. In *International Workshop on Approximation Algorithms for Combinatorial Optimization Problems*, APPROX '17, pages 12:1–12:20, Berkeley, CA, USA, 2017.

- [23] Mitali Bafna and Jonathan Ullman. The price of selection in differential privacy. In *Annual Conference on Learning Theory, COLT '17*, pages 151–168, Amsterdam, The Netherlands, 2017. PMLR.
- [24] Aaron Roth, Aleksandrs Slivkins, Jonathan Ullman, and Zhiwei Steven Wu. Multidimensional dynamic pricing for welfare maximization. In *ACM Conference on Economics and Computation, EC '17*, pages 519–536, Cambridge, MA, USA, 2017. ACM.
- [25] Mark Bun, Thomas Steinke, and Jonathan Ullman. Make up your mind: The price of online queries in differential privacy. In *Proceedings of the 28th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA '17*, pages 1306–1325, Philadelphia, PA, USA, 2017. SIAM.
- [26] Ryan Rogers, Aaron Roth, Jonathan Ullman, and Salil Vadhan. Privacy odometers and filters: Pay-as-you-go composition. In *Annual Conference on Neural Information Processing Systems, NeurIPS '16*, pages 1921–1929, Barcelona, Spain, 2016.
- [27] Lucas Kowalczyk, Tal Malkin, Jonathan Ullman, and Mark Zhandry. Strong hardness of privacy from weak traitor tracing. In *International Conference on Theory of Cryptography, TCC '16b*, pages 659–689, Beijing, China, 2016. Springer.
- [28] Edo Liberty, Michael Mitzenmacher, Justin Thaler, and Jonathan Ullman. Space lower bounds for itemset frequency sketches. In *ACM Symposium on Principles of Database Systems, PODS '16*, pages 441–454, San Francisco, CA, USA, 2016. ACM.
- [29] Raef Bassily, Kobbi Nissim, Adam Smith, Thomas Steinke, Uri Stemmer, and Jonathan Ullman. Algorithmic stability for adaptive data analysis. In *ACM Symposium on the Theory of Computing ACM Symposium on the Theory of Computing, STOC '16*, pages 1046–1059, Cambridge, MA, USA, 2016. ACM.
- [30] Aaron Roth, Jonathan Ullman, and Zhiwei Steven Wu. Watch and learn: Optimizing from revealed preferences feedback. In *ACM Symposium on the Theory of Computing, STOC '16*, pages 949–962, Cambridge, MA, USA, 2016. ACM.
- [31] Cynthia Dwork, Adam Smith, Thomas Steinke, Jonathan Ullman, and Salil Vadhan. Robust traceability from trace amounts. In *IEEE Symposium on Foundations of Computer Science, FOCS '15*, pages 650–669, Berkeley, CA, USA, 2015. IEEE.
- [32] Thomas Steinke and Jonathan Ullman. Interactive fingerprinting codes and the hardness of preventing false discovery. In *Annual Conference on Learning Theory, COLT '15*, pages 1588–1628, Paris, France, 2015. PMLR.
- [33] Jonathan Ullman. Private multiplicative weights beyond linear queries. In *ACM Symposium on Principles of Database Systems, PODS '15*, pages 303–312, Melbourne, Australia, 2015. ACM.
- [34] Pavel Hubáček, Moni Naor, and Jonathan Ullman. When can limited randomness be used in repeated games? In *IACR International Symposium on Algorithmic Game Theory, SAGT '15*, pages 259–271, Saarbrücken, Germany, 2015. Springer.

- [35] Ryan M. Rogers, Aaron Roth, Jonathan Ullman, and Zhiwei Steven Wu. Inducing approximately optimal flow using truthful mediators. In *ACM Conference on Economics and Computation*, EC '15, pages 471–488, Portland, OR, USA, 2015. ACM.
- [36] Moritz Hardt and Jonathan Ullman. Preventing false discovery in interactive data analysis is hard. In *IEEE Annual Symposium on Foundations of Computer Science*, FOCS '14, pages 454–463, Philadelphia, PA, USA, 2014. IEEE.
- [37] Justin Hsu, Aaron Roth, Tim Roughgarden, and Jonathan Ullman. Privately solving linear programs. In *International Colloquium on Automata, Languages, and Programming, Track A*, ICALP(A) '14, pages 612–624, Copenhagen, Denmark, 2014. Springer.
- [38] Karthekeyan Chandrasekaran, Justin Thaler, Jonathan Ullman, and Andrew Wan. Faster private release of marginals on small databases. In *ACM Conference on Innovations in Theoretical Computer Science*, ITCS '14, pages 287–402, Princeton, NJ, USA, 2014. ACM.
- [39] Michael Kearns, Mallesh M. Pai, Aaron Roth, and Jonathan Ullman. Mechanism design in large games: incentives and privacy. In *ACM Conference on Innovations in Theoretical Computer Science*, ITCS '14, pages 403–410, Princeton, NJ, USA, 2014. ACM.
- [40] Mark Bun, Jonathan Ullman, and Salil Vadhan. Fingerprinting codes and the price of approximate differential privacy. In *Annual ACM Symposium on the Theory of Computing*, STOC '14, pages 1–10, New York, NY, USA, 2014. ACM.
- [41] Justin Hsu, Aaron Roth, and Jonathan Ullman. Differential privacy for the analyst via private equilibrium computation. In *ACM Symposium on the Theory of Computing*, STOC '13, pages 341–350, Palo Alto, CA, USA, 2013. ACM.
- [42] Jonathan Ullman. Answering  $n^{2+o(1)}$  counting queries with differential privacy is hard. In *ACM Symposium on the Theory of Computing*, STOC '13, pages 361–370, Palo Alto, CA, USA, 2013. ACM.
- [43] Justin Thaler, Jonathan Ullman, and Salil P. Vadhan. Faster algorithms for privately releasing marginals. In *International Colloquium on Automata, Languages, and Programming, Track A*, ICALP(A) '12, pages 810–821, Warwick, UK, 2012. Springer.
- [44] Anupam Gupta, Aaron Roth, and Jonathan Ullman. Iterative constructions and private data release. In *IACR International Conference on Theory of Cryptography*, TCC '12, pages 339–356, Taormina, Italy, 2012. Springer.
- [45] Anupam Gupta, Moritz Hardt, Aaron Roth, and Jonathan Ullman. Privately releasing conjunctions and the statistical query barrier. In *ACM Symposium on Theory of Computing*, STOC '11, pages 803–812, San Jose, CA, USA, 2011. ACM.
- [46] Jonathan Ullman and Salil P. Vadhan. PCPs and the hardness of generating private synthetic data. In *IACR International Conference on Theory of Cryptography*, TCC '11, pages 400–416, Providence, RI, USA, 2011. Springer.

- [47] Shiva Prasad Kasiviswanathan, Mark Rudelson, Adam Smith, and Jonathan Ullman. The price of privately releasing contingency tables and the spectra of random matrices with correlated rows. In *ACM Symposium on Theory of Computing*, STOC '10, pages 775–784, Cambridge, MA, USA, 2010. ACM.
- [48] Scott Duke Kominers, Mike Ruberry, and Jonathan Ullman. Course allocation by proxy auction. In *International Workshop on Internet and Network Economics*, WINE '10, pages 551–558, Stanford, CA, USA, 2010. Springer.

### JOURNAL PUBLICATIONS (REVERSE CHRONOLOGICAL ORDER)

- [49] Jonathan Ullman and Salil Vadhan. PCPs and the hardness of generating synthetic data. *Journal of Cryptology*, pages 1–35, 2020.
- [50] Aaron Roth, Aleksandrs Slivkins, Jonathan Ullman, and Zhiwei Steven Wu. Multidimensional dynamic pricing for welfare maximization. *ACM Transactions on Economics and Computation*, 8(1):6:1–6:35, 2020.
- [51] Mark Bun, Thomas Steinke, and Jonathan Ullman. Make up your mind: The price of online queries in differential privacy. *Journal of Privacy and Confidentiality*, 9(1):1–35, 2019.
- [52] Cynthia Dwork and Jonathan Ullman. The Fienberg problem: How to allow human interactive data analysis in the age of differential privacy. *Journal of Privacy and Confidentiality*, 8(1):1–10, 2018.
- [53] Mark Bun, Jonathan Ullman, and Salil Vadhan. Fingerprinting codes and the price of approximate differential privacy. *SIAM Journal on Computing*, 47(5):1888–1938, 2018.
- [54] Foto N. Afrati, Shantanu Sharma, Jonathan R. Ullman, and Jeffrey D. Ullman. Computing marginals using MapReduce. *Journal of Computer and System Sciences*, 94:98–117, 2018.
- [55] Mallesh M. Pai, Aaron Roth, and Jonathan Ullman. An antifolk theorem for large repeated games. *ACM Transactions on Economics and Computation (TEAC)*, 5(2):10:1–10:20, 2017.
- [56] Thomas Steinke and Jonathan Ullman. Between pure and approximate differential privacy. *Journal of Privacy and Confidentiality*, 7(2):1–20, 2017.
- [57] Pavel Hubáček, Moni Naor, and Jonathan Ullman. When can limited randomness be used in repeated games? *Theory of Computing Systems*, 59(4):722–746, 2016.
- [58] Jonathan Ullman. Answering  $n^{2+o(1)}$  counting queries with differential privacy is hard. *SIAM Journal on Computing*, 45(2):473–496, 2016.
- [59] Anupam Gupta, Moritz Hardt, Aaron Roth, and Jonathan Ullman. Privately releasing conjunctions and the statistical query barrier. *SIAM Journal on Computing*, 42(4):1494–1520, 2013.

## OTHER WRITINGS (REVERSE CHRONOLOGICAL ORDER)

- [60] Clément Canonne, Gautam Kamath, Thomas Steinke, Jonathan Ullman, and Zhiwei Steven Wu. DifferentialPrivacy.org. <https://differentialprivacy.org/average-case-dp/>, 2020.
- [61] Gautam Kamath and Jonathan Ullman. A primer on private statistics. *arXiv preprint arXiv:2005.00010*, 2020.
- [62] Jonathan Ullman. Technical perspective: Building a safety net for data reuse. *Communications of the ACM*, 60(4):85–85, 2017.
- [63] Cynthia Dwork, Adam Smith, Thomas Steinke, and Jonathan Ullman. Exposed! a survey of attacks on private data. *Annual Review of Statistics and Its Application*, 4:61–84, 2017.
- [64] Aaron Roth, Jonathan Ullman, and Zhiwei Steven Wu. Watch and learn: optimizing from revealed preferences feedback. *ACM SIGecom Exchanges*, 14(1):101–104, 2015.
- [65] Jonathan Ullman. Query release via online learning. *Encyclopedia of Algorithms*, pages 1–5, 2015.

## FUNDING

### EXECUTIVE SUMMARY

Total research funding approximately \$1.4m. NSF CAREER Award in 2018; Google Faculty Research Award in 2018.

### GRANTS AND AWARDS

- NSF award #1916020** **10/2019 – 10/2021**  
 Project Title: *Understanding and Mitigating the Privacy and Societal Risks of Advanced Advertising Targeting and Tracking*  
 Role: co-PI; joint with Alan Mislove (Northeastern) and Alexandra Korolova (USC)  
 Amount: \$1.2m total, \$400k for co-PI Ullman
- NSF award #1816028** **08/2018 – 08/2021**  
 Project Title: *New Approaches to Decentralized Differential Privacy*  
 Role: PI; joint with abhi shelat (Northeastern)  
 Amount: \$500k total; \$250k for PI Ullman
- Google Faculty Research Award** **02/2018**  
 Project Title: *Distributed Differential Privacy Beyond Local Protocols*  
 Amount: \$65k
- NSF CAREER award #1750640** **08/2018 – 08/2023**  
 Project Title: *CAREER: A Stable Foundation for Trustworthy Data Analysis*  
 Amount: \$500k
- NSF award #1718088** **08/2017 – 08/2020**  
 Project Title: *Programming Tools for Adaptive Data Analysis*  
 Role: PI; joint with Marco Gaboardi (SUNY Buffalo)  
 Amount: \$448k total; \$224k for PI Ullman

## MENTORING

### POSTDOC MENTORING

**Audra McMillan** 06/2018–06/2020  
Research: differentially private statistical inference  
Cybersecurity & Privacy Institute Fellow; joint with Boston University  
Next Position: Research Scientist, Apple, Inc.

### PHD MENTORING

**Konstantina Bairaktari** 09/2020 – Current  
Co-advised with Huy Le Nguyen

**Lydia Zakynthinou** 09/2017 – Current  
Research: theory of machine learning, differential privacy  
Facebook Fellowship  
Co-advised with Huy Le Nguyen  
Expected graduation: 05/2022

**Albert Cheu** 09/2016 – Current  
Research: distributed differential privacy  
Expected graduation: 05/2021

**Vikrant Singhal** 09/2016 – Current  
Research: differentially private statistical inference  
Expected graduation: 05/2021

### UNDERGRADUATE MENTORING

**Tatiana Ediger** 05/2020 – 07/2020  
Northeastern undergraduate  
Project: privacy attacks on linear regression

**Jeffrey Champion** 06/2017 – 12/2019  
Northeastern undergraduate co-op student  
Paper *Securely Sampling Biased Coins with Applications to Differential Privacy* in *CCS 2019*.  
Next position: Ph.D. in Computer Science, University of Texas at Austin

**Mitali Bafna** 06/2016 – 12/2016  
IIT Madras undergraduate  
Paper *The Price of Differentially Private Selection* in *COLT 2017*.  
Next position: Ph.D. in Computer Science, Harvard University

### THESIS COMMITTEES

Giorgios Zirdelis (expected graduation Spring 2021; advisor: Daniel Wicks)  
Cheng Li (graduated Fall 2019; advisor: Jay Aslam)  
Adam Sealfon (graduated Summer 2019 from MIT; advisor: Shafi Goldwasser)  
Chin Ho Lee (graduated Summer 2019; advisor: Emanuele Viola)  
Benjamin Kreuter (graduated Spring 2018; advisor: abhi shelat)  
Maryam Aziz (graduated Fall 2018; advisor: Jay Aslam)  
Zahra Jafargholi (graduated Spring 2016; advisor: Daniel Wicks)



## TEACHING

### Northeastern University CS 3000: Algorithms & Data

Undergraduate course on algorithm design and analysis.

Formerly listed as CS 4800: Algorithms & Data

Term	Students	Instructor Rating
Spring 2018	48	4.8/5.0
Fall 2018 (Sec 01)	72	4.7/5.0
Fall 2018 (Sec 04)	38	4.5/5.0
Spring 2020	70	4.8/5.0

### Northeastern University CS 7880: Rigorous Approaches to Data Privacy

New Ph.D. level topics course on differential privacy

Term	Students	Instructor Rating
Spring 2017	9	5.0/5.0

### Northeastern University CS 7800: Advanced Algorithms

Ph.D. level core course on algorithm design and analysis.

Term	Students	Instructor Rating
Fall 2015	17	4.5/5.0
Fall 2016	28	4.9/5.0
Fall 2017	27	4.5/5.0

## TALKS GIVEN (REVERSE CHRONOLOGICAL ORDER)

### Invited Talks

Apple Privacy-Preserving Machine Learning Workshop	08/2020
IMA Workshop on Recent Themes in Resource Tradeoffs	06/2019
University of Pennsylvania Warren Center Seminar	11/2018
Banff Mathematical Foundations of Differential Privacy Workshop	05/2018
Simons Statistics, Optimization, and Uncertainty Workshop	12/2017
Simons Differential Privacy Semester Planning Workshop	05/2017
IAS Symposium on Four Facets of Differential Privacy	11/2016
PCMI Summer Session, the Mathematics of Data	07/2016
IHP Nexus of Information and Computation Theories	03/2016
NIPS Workshop on Adaptive Data Analysis	12/2015
Oberwolfach meeting on complexity. <b>Invited Plenary Talk</b>	11/2015
Theory and Practice of Differential Privacy Workshop. <b>Invited Keynote Talk</b>	04/2015
Charles River Privacy Day, Boston University	05/2014
Northeastern University CS Colloquium	03/2014
University of Toronto CS Colloquium	02/2014
Northwestern CS Colloquium	02/2013
USC CS Colloquium	02/2013
Simons Big Data and Differential Privacy Workshop	03/2013
Simons Workshop on the Science of Differential Privacy	02/2013
China Theory Week	10/2011

**Seminar Talks**

Boston University Theory of Computing Seminar.	10/2019
MIT Cryptographic and Information Security Seminar.	04/2017
UMass Amherst Database Seminar.	10/2016
MIT Theory of Computing Seminar.	10/2016
University of Warwick Theory of Computing Seminar.	04/2015
NYU Polytech Theory of Computing Seminar.	10/2014
Penn State Theory of Computing Seminar.	09/2014
MSR SVC Seminar.	11/2013
Princeton Theory of Computing Seminar.	11/2013
NYU Theory of Computing Seminar.	10/2013
Columbia University Theory of Computing Seminar.	10/2013
Boston Univeristy Theory of Computing Seminar.	02/2011
MSR New England Seminar.	11/2010
Penn State Theory of Computing Seminar.	04/2010

**PROFESSIONAL ACTIVITIES****EXTERNAL ACTIVITIES****Theory and Practice of Differential Privacy Workshop**

Steering Committee Co-Chair

Program Committee Chair for TPD 2017

Guest Editor, Special issue of *Journal of Privacy and Confidentiality* for work from TPD 2017**DifferentialPrivacy.org Website****Co-creator and Contributor****7th Bar Ilan University Winter School on Cryptography****Co-instructor** for course *Differential Privacy: From Theory to Practice***Conference Program Committee and Reviewer****Program Committee**, Symposium on Theory of Computing (STOC) 2015**Program Committee**, Theory of Cryptography Conference (TCC) 2015**Program Committee**, Innovations in Theoretical Computer Science (ITCS) 2015**Program Committee**, Economics and Computation (EC) 2016**Program Committee**, Theory of Cryptography Conference (TCC) 2016b**Reviewer**, Neural and Information Processing Systems (NeurIPS) 2016**Reviewer**, Neural and Information Processing Systems (NeurIPS) 2017**Program Committee**, Conference on Artificial Intelligence and Statistics (AISTATS) 2017**Program Committee**, Symposium on Discrete Algorithms (SODA) 2018**Reviewer**, International Conference on Machine Learning (ICML) 2018**Program Committee**, Symposium on Foundations of Computer Science (FOCS) 2018**Program Committee**, Information Theoretic Cryptography (ITC) 2020**Reviewer**, International Conference on Machine Learning (ICML) 2020**Program Committee**, Conference on Computer and Communications Security (CCS) 2020**Reviewer Committee**, Conference on Learning Theory (COLT) 2020

**Program Committee**, Symposium on Security and Privacy (Oakland) 2021

**INTERNAL ACTIVITIES**

**Khoury College of Computer Science Committees**

<b>Representative</b> , Ph.D. Admissions Committee	2020/2021 AY
<b>Representative</b> , Ph.D. Curriculum Committee	2020/2021 AY
<b>Representative</b> , Teaching Awards Committee	2020/2021 AY
<b>Co-organizer</b> , Ph.D. Open House	03/2020
<b>Co-organizer</b> , Ph.D. Open House	03/2020
<b>Representative</b> , Ph.D. Admissions Committee	2019/2020 AY
<b>Representative</b> , Ph.D. Curriculum Committee	2018/2019 AY
<b>Representative</b> , TT Hiring Committee	2017/2018 AY
<b>Representative</b> , TT Hiring Committee	2016/2017 AY
<b>Co-organizer</b> , Ph.D. Open House	03/2016
<b>Representative</b> , Ph.D. Admissions Committee	2015/2016 AY