

Jordan A. Awan
jaa557@pitt.edu
[Google Scholar](#)

RESEARCH INTERESTS

Data Privacy

Theoretical and applied problems in differential privacy; Statistical inference on privatized data; Theoretical guarantees for synthetic data.

Statistics

Simulation-based inference; Computational statistics, Functional data analysis, Causal inference.

Applied Work

Analysis of physiological signals; Acoustic Analyses; Pitch Estimation.

EDUCATION

Penn State University, University Park PA

August 2016-May 2020

Doctor of Philosophy, Statistics.

Advised by [Aleksandra Slavković](#) and [Matthew Reimherr](#).

Brandeis University, Waltham MA

Fall 2014-Spring 2016

Master of Arts, Mathematics.

Clarion University of Pennsylvania, Clarion PA

Fall 2011-Spring 2014

Bachelor of Science, Mathematics.

Minors: Computer Science, Honors.

PROFESSIONAL CAREER

University of Pittsburgh, Department of Statistics, Pittsburgh PA

August 2025-present

Assistant Professor.

Purdue University, Department of Statistics, West Lafayette IN

August 2020-August 2025

Assistant Professor.

MITRE

June 2021-present

Differential privacy consultant for MITRE and Census Disclosure Avoidance System team.

Harvard University, Center for Research on Computation and Society (CRCS), Cambridge MA

Summer 2018

Visiting Graduate Student. Advised by [Salil Vadhan](#).

Penn State University, Department of Statistics, University Park PA

Summer 2017-Spring 2020

Research Assistant.

Teaching Assistant (Spring 2019). STAT 401.

Lafayette College, Department of Mathematics, Easton PA

Summer 2013

REU participant.

HONORS & AWARDS

ASHA Convention Visionary Session, American Speech and Hearing Association

Fall 2024

Presentation “Estimating Transglottal Airflow Using a Vortex Whistle System and the Phonation Quotient” selected as Visionary

2024 College of Science Recognition Award, Purdue University Recognized as the recipient of high profile projects	Spring 2024
Faculty/Staff Recognition Award, Purdue Statistics	Spring 2024
2nd place Best Poster Award, Statistics and Optimization in Data Science Workshop, Purdue University	Summer 2023
Outstanding Poster Award, Midwest Machine Learning Symposium	Spring 2023
Regina and Norman Carroll Research Award for 2022, Purdue Statistics Recognized for distinctive contributions to statistical science	Spring 2023
Journal of Voice 2022 Best Paper Award Best Paper in the Speech-Language Pathology category	Spring 2023
The Voice Foundation Best Poster Award	Summer 2021
Penn State 2020 Alumni Dissertation Award	Spring 2020
PSU Statistics 50th Anniversary Best Poster Award	Spring 2018
August and Ruth Homeyer Graduate Fellowship, PSU	Fall 2017-Spring 2018
Best Performance on Applied Qualifying Exam, PSU Statistics	Summer 2017
Stephen B. Brumbach Distinguished Graduate Fellowship, PSU	Fall 2016-Spring 2017
GAANN Fellowship	Fall 2014-Summer 2016
MAA Outstanding Student Poster Award	Winter 2014
Clarion University France-Allison Presentation Award	Fall 2013
MAA Outstanding Student Presentation Award	Summer 2013
Board of Governors Academic Tuition Scholarship	Fall 2011-Spring 2014

SUBMITTED PAPERS & PREPRINTS

1. Wang, Z., Cheng, G., **Awan, J.** “[Differentially Private Bootstrap: New Privacy Analysis and Inference Strategies.](#)” [arXiv:2210.06140.](#)
2. **Awan, J.**, Barrientos, A. F., Ju, N. “[Statistical Inference for Privatized Data with Unknown Sample Size.](#)” [arXiv:2406.06231.](#)
3. **Awan, J.**, Edwards, A., Bartholomew, P., Sillers, A. “[Best Linear Unbiased Estimate from Privatized Histograms.](#)” [arXiv:2409.04387.](#)
4. Ohnishi, Y., **Awan, J.** “[Differentially Private Covariate Balancing Causal Inference.](#)” [arXiv:2410.14789.](#)
5. Cho, Y., **Awan, J.** “[Formal Privacy Guarantees with Invariant Statistics.](#)” [arXiv:2410.17468.](#)
6. Eng, K., **Awan, J.**, Ju, N., Rao, V., Gong, R. “[dapper: Data Augmentation for Private Posterior Estimation in R.](#)” [arXiv:2412.14503.](#)

REFEREED PUBLICATIONS

1. Chen, Y.-W., Pasupathy, R., **Awan, J.** (2025) “[Optimal Survey Design for Private Mean Estimation.](#)” *Proceedings of the 42nd International Conference on Machine Learning.* Accepted.
2. **Awan, J.**, Wang, Y. (2025) “[Differentially Private Kolmogorov-Smirnov-Type Tests.](#)” *Electronic Journal of Statistics.* Volume 19, No. 1, Pages 718-744.
3. Ohnishi, Y., **Awan, J.** (2025) “[Locally Private Causal Inference for Randomized Experiments.](#)” *Journal of Machine Learning Research.* Volume 26, No. 14, Pages 1-40.

4. Awan, S., **Awan, J.** (2025) “[Comparison of Methods of Eliciting Vital Capacity: Forced vs. Slow Vital Capacity.](#)” *Journal of Voice*. Available online.
5. **Awan, J.**, Cai, Z. (2025) “[One Step to Efficient Synthetic Data.](#)” *Statistica Sinica*. Volume 35, Pages 531-569.
6. **Awan, J.**, Wang, Z. (2024) “[Simulation-Based Finite-Sample Inference for Privatized Data.](#)” *Journal of the American Statistical Association*. Available online.
7. **Awan, J.**, Ramasethu, A. (2024) “[Optimizing Noise for \$f\$ -Differential Privacy via Anti-Concentration and Stochastic Dominance.](#)” *Journal of Machine Learning Research*. Volume 25, Number 351, Pages 1-32.
8. Kang, T., Kim, S., Sohn, J., **Awan, J.** (2024) “[Differentially Private Topological Data Analysis.](#)” *Journal of Machine Learning Research*. Volume 25, No. 189, Pages 1-42.
9. **Awan, J.**, Bernardi, O. (2024) “[Tutte Polynomials for Regular Oriented Matroids.](#)” *Discrete Mathematics*. Volume 347, Number 1.
10. **Awan, J.**, Vadhan, S. (2023) “[Canonical Noise Distributions and Private Hypothesis Tests.](#)” *Annals of Statistics*. Volume 51, Number 2, Pages 547-572.
11. **Awan, J.**, Rao, V. (2023) “[Privacy-Aware Rejection Sampling.](#)” *Journal of Machine Learning Research*. Volume 24, No. 74, Pages 1-32.
12. Awan, S., Shaikh, M., **Awan, J.**, Abdalla, I., Lim, K., Misono, S., (2023) “[Smartphone Recordings are Comparable to ‘Gold Standard’ Recordings for Acoustic Measurements of Voice.](#)” *Journal of Voice*. Available online.
13. Feinstein, H., Daşdöğen, Ü., **Awan, J.**, Awan, S., Verdolini Abbott, K. (2023) “[Comparative Analysis of Two Methods of Perceptual Voice Assessment.](#)” *Journal of Voice*. Available online.
14. **Awan, J.**, Dong, J. (2022) “[Log-Concave and Multivariate Canonical Noise Distributions for Differential Privacy.](#)” *Advances in Neural Information Processing Systems 36*, 34229-34240.
15. Ju, N., **Awan, J.**, Gong, R., Rao, V. (2022) “[Data Augmentation MCMC for Bayesian Inference from Privatized Data.](#)” *Advances in Neural Information Processing Systems 36*, 12732-12743.
16. **Awan, J.**, Frechette, C., Li, Y., McMahon, E. (2022) “[Demicaps in \$AG\(4, 3\)\$ and their Relation to Maximal Cap Partitions.](#)” *Graphs and Combinatorics*. Volume 83, No. 193.
17. Li, A., Chen, J., **Awan, J.**, Eddins, D., Awan, S. (2022) “[Performance Analysis and Parametric Study of Vortex Whistle.](#)” *Proceedings of the ASME 2022 Fluids Engineering Division Summer Meeting. Volume 1: Fluid Applications and Systems (FASTC); Fluid Measurement and Instrumentation (FMITC); Fluid Mechanics (FMTC)*. Toronto, Ontario, Canada. August 3–5, 2022. V001T01A018. ASME.
18. Li, A., **Awan, J.**, Chen, J., Eddins, D., Awan, S. (2022) “[Enhancing the Vortex Whistle for Measures of Respiratory Capacity via CFD and CAA.](#)” *Journal of Biomechanical Engineering*. Volume 144, Issue 11.
19. Awan, S., **Awan, J.** (2022) “[Use of a Vortex Whistle for Measures of Respiratory Capacity.](#)” *Journal of Voice*. Volume 36, Issue 5, Pages 630-636. (**Best Paper Award**)
20. **Awan, J.**, Slavković, A. (2021) “[Structure and Sensitivity in Differential Privacy: Comparing \$K\$ -Norm Mechanisms.](#)” *Journal of the American Statistical Association*. Volume 116, Number 534, 935-954.
21. **Awan, J.**, Slavković, A. (2020) “[Differentially Private Inference for Binomial Data.](#)” *Journal of Privacy and Confidentiality*. Volume 10, No. 1.
22. **Awan, J.**, Bernardi, O. (2020) “[Tutte Polynomials for Directed Graphs.](#)” *Journal of Combinatorial Theory, Series B*. Volume 140, 192-247.
23. Awan, S., **Awan, J.** (2020) “[A Two-Stage Cepstral Analysis Procedure for the Classification of Rough Voices.](#)” *Journal of Voice*. Volume 34, Issue 1, 9-19.
24. Reimherr, M., **Awan, J.** (2019) “[KNG: The \$K\$ -Norm Gradient Mechanism.](#)” *Advances in Neural Information Processing Systems 33*. 10208-10219.
25. Reimherr, M., **Awan, J.** (2019) “[Elliptical Perturbations for Differential Privacy.](#)” *Advances in Neural Information Processing Systems 33*. 10185-10196.
26. **Awan, J.**, Kenney, A., Reimherr, M., Slavković A. (2019) “[Benefits and Pitfalls of the Exponential Mechanism with Applications to Hilbert Spaces and Functional PCA.](#)” *Proceedings of the 36th International Conference on Machine Learning*, 97:374-384.

27. **Awan, J.**, Slavković, A. (2018) “Differentially Private Uniformly Most Powerful Tests for Binomial Data.” *Advances in Neural Information Processing Systems* 32, 4208-4218.
28. Gaskill, C., **Awan, J.**, Watts, C., Awan, S. (2016) “Acoustic and Perceptual Classification of Within-sample Normal, Intermittently Dysphonic, and Consistently Dysphonic Voice Types.” *Journal of Voice*, Volume 31, Issue 2, Pages 218-228.
29. Awan, S., **Awan, J.** (2013) “The Effect of Gender on Measures of Electroglottographic Contact Quotient.” *Journal of Voice*, Volume 27, Issue 4, 433-440.

BOOK CHAPTERS

1. **Awan, J.**, Gong, R. (2024). “Statistical Inference and Differential Privacy.” In Drechsler, J., Kifer, D., Reiter, J., & Slavković, A. (Eds.), *Handbook of Sharing Confidential Data: Differential Privacy, Secure Multiparty Computation, and Synthetic Data*. Chapman and Hall/CRC.

OTHER PUBLICATIONS

1. **Awan, J.** (2024). “Here’s How Machine Learning can Violate your Privacy.” *The Conversation*. May 23, 2024.
2. Habib, S., Pires, B., Benedetto, G., Rodriguez, R., **Awan, J.**, Stanley, J., Totty, E., Germinario, G., & Stevenson, R. (2023). “Automated Synthetic Data Validation: Applying Noise Injection for Disclosure Avoidance.” *Joint Statistical Meetings (JSM)*, Toronto, Canada.
3. **Awan, J.**, Reimherr, M., Slavković, A. (2020). “Formal Privacy for Modern Nonparametric Statistics.” *CHANCE* 33, No. 4. 43-49.
4. Awan, S., **Awan, J.**, Watts, C., S. Gaskill, C. (2018). “Response to Aichinger and Kubin Re: Letter to the Editor “Acoustic and Perceptual Classification of Within-Sample Normal, Intermittently Dysphonic, and Consistently Dysphonic Voice Types”.” *Journal of Voice*. Issue 32, No. 3, 383-384.

GRANTS

NIH R01: Deconstructing Voice Therapy: Towards Enhanced Communication Outcomes, Co-I **2025-2030**

Award number: 1R01DC022026-01A1

Co-investigator. PI: Dr. Amanda Gillespie. \$2,821,462 for 5 years.

Directly responsible for \approx \$300,000.

NIH R01: Vital Capacity & Airflow Measurement for Voice Evaluation: A Vortex Whistle System, MPI **2023-2028**

Award number: R01 DC020799-01A1

One of 4 MPIs, along with Dr. Shaheen Awan, Dr. Jun Chen, and Dr. Amanda Gillespie. \$3,129,418 for 5 years.

Directly responsible for \approx \$450,000.

NSF SES: Simulation-Based Inference for Differential Privacy, PI **2022-2025**

Principal investigator, along with Co-PI Dr. Roberto Molinari. \$450,000 for 3 years.

RESEARCH PRESENTATIONS

University of Pittsburgh, Department of Statistics, Pittsburgh, PA
Simulation-Based, Finite-Sample Inference for Privatized Data

December 2024

Joint Statistical Meetings, Portland, OR

August 2024

Panel: Evaluating Statistical Disclosure Control Techniques based on the Risk and Utility of Privacy-Protected Data	
Auburn University, Department of Mathematics and Statistics, Auburn, AL Simulation-Based, Finite-Sample Inference for Privatized Data	April 2024
25th Annual CERIAS Security Symposium, Purdue University, West Lafayette, IN Valid Statistical Inference on Privatized Data	April 2024
Joint Statistical Meetings, Toronto Canada Simulation-Based Inference for Privatized Data	August 2023
Air Force Institute of Technology, Department of Mathematics and Statistics, Wright-Patterson Air Force Base, OH Bayesian Inference on Privatized Data	January 2023
Auburn University, Statistics and Data Science Seminar, Online Bayesian Inference from Privatized Data	September 2022
Statistical Learning and Differential Privacy, Bath U.K. (online) Data Augmentation MCMC for Bayesian Inference from Privatized Data	September 2022
Joint Statistical Meetings, Washington D.C. Posterior Inference on Privatized Data via Data Augmentation MCMC	August 2022
Workshop on the Analysis of Census Noisy Measurement Files and Differential Privacy, Rutgers University Posterior Inference on Privatized Data via Data Augmentation MCMC	April 2022
Computational & Methodological Statistics Meeting, Online Canonical noise distributions and private hypothesis tests	December 2021
Privacy in Machine Learning, Virtual NeurIPS Workshop Canonical noise distributions and private hypothesis tests	December 2021
Privacy in Machine Learning, Virtual NeurIPS Workshop Privacy-aware rejection sampling	December 2021
Privacy Preserving Machine Learning, Virtual ACM CCS Workshop Canonical noise and private hypothesis tests	November 2021
Michigan State University, Department of Statistics, Online Canonical noise and private hypothesis tests	November 2021
Invited Panel: Virtual Symposium on Data Privacy, ASA Nevada Chapter Canonical noise distributions and private hypothesis tests	September 2021
2021 Joint Statistical Meetings, Online Approximate co-sufficient sampling with applications to goodness of fit tests and synthetic data	August 2021
2020 Joint Statistical Meetings, Online KNG: The K-norm gradient mechanism	August 2020
University of Wisconsin-Madison, Department of Statistics, Madison WI Differentially private inference for binomial data	February 2020
Lafayette College, Department of Mathematics, Easton PA Differentially private inference for binomial data	February 2020
George Mason University, Department of Statistics, Fairfax VA	February 2020

Differentially private inference for binomial data	
Bucknell University, Department of Mathematics, Lewisburg PA	Spring 2020
Differentially private inference for binomial data	
Purdue University, Department of Statistics, West Lafayette IN	Spring 2020
Differentially private inference for binomial data	
2019 Joint Statistical Meetings, Denver CO	Summer 2019
Benefits and pitfalls of the exponential mechanism	
36th International Conference Machine Learning, Long Beach CA	Summer 2019
Benefits and pitfalls of the exponential mechanism	
Simons Institute for the Theory of Computing, Berkeley CA	April 2019
Differentially private UMP hypothesis tests for Bernoulli data	
Computational & Methodological Statistics Meeting in Pisa, Italy	December 2018
Differentially private UMP hypothesis tests for Bernoulli data	
2018 Joint Statistical Meetings, Vancouver Canada	July 2018
Optimizing finite sample performance under differential privacy	
Statistical Society of Canada Annual Meeting, McGill University, Montreal Canada	June 2018
Optimizing finite sample performance under differential privacy	
Mathematical Foundations of Data Privacy, Banff International Research Station (BIRS), Banff Canada	May 2018
Structure and sensitivity in DP: comparing K -norm mechanisms	
Stochastic Modeling and Computational Statistics Seminar at Penn State, University Park PA	February 2018
Structure and sensitivity in DP: comparing K -norm mechanisms	
MIT Combinatorics Seminar, Cambridge MA	April 2016
Tutte polynomials for directed graphs and oriented matroids	
Brandeis Graduate Student Seminar, Waltham MA	April 2016
Tutte polynomials for directed graphs and oriented matroids	
Brandeis Combinatorics Seminar, Waltham MA	January 2016
Tutte polynomials for directed graphs and oriented matroids	
Brandeis Mathematics Graduate Student Seminar, Waltham MA	Fall 2014
Maximal caps and substructures in $AG(4, 3)$	
Pi Mu Epsilon Conference, Youngstown OH	Spring 2014
Maximal caps and substructures in $AG(4, 3)$	
Joint Math Meetings, Baltimore MD	Winter 2014
Maximal caps and substructures in $AG(4, 3)$	
Clarion University Honors Presentations, Clarion PA	Fall 2013
Results on demicaps in $AG(4, 3)$	
Mathfest Conference, Hartford CT	Summer 2013
Maximal caps and substructures in $AG(4, 3)$	

POSTERS

**Thirty-Sixth Conference on Neural Information Processing Systems, New Orleans, LA (online)
November 2022**

Log-Concave and Multivariate Canonical Noise Distributions for Differential Privacy

**Thirty-Sixth Conference on Neural Information Processing Systems, New Orleans, LA (online)
November 2022**

Data Augmentation MCMC for Bayesian Inference from Privatized Data

Privacy in Machine Learning, Virtual NeurIPS Workshop **December 2021**

Canonical noise distributions and private hypothesis tests

Privacy in Machine Learning, Virtual NeurIPS Workshop **December 2021**

Privacy-aware rejection sampling

Privacy Preserving Machine Learning, Virtual ACM CCS Workshop **November 2021**

Canonical noise and private hypothesis tests

Privacy Preserving Machine Learning, Virtual ACM CCS Workshop **November 2021**

Privacy-aware rejection sampling

**Thirty-Third Conference on Neural Information Processing Systems,
Vancouver Canada** **December 2019**

Elliptical perturbations for differential privacy

**Thirty-Third Conference on Neural Information Processing Systems,
Vancouver Canada** **December 2019**

K -Norm gradient mechanism for private empirical risk minimization

36th International Conference on Machine Learning, Long Beach CA **Summer 2019**

Benefits and pitfalls of the exponential mechanism

**Thirty-second Conference on Neural Information Processing Systems,
Montreal Canada** **December 2018**

Differentially private uniformly most powerful tests for binomial data

**Theory and Practice of Differential Privacy in 25th ACM Conference on
Computer and Communications Security, Toronto Canada** **October 2018**

Differentially private uniformly most powerful tests for binomial data

**50th Anniversary Conference at Penn State Department of Statistics,
University Park PA** **May 2018**

Optimizing finite sample performance under differential privacy

Rao Prize Conference at Penn State, University Park PA **May 2017**

Maximum likelihood estimation with differential privacy

Joint Math Meetings, Baltimore MD **Winter 2014**

REU results on maximal caps and substructures in $AG(4, 3)$

OTHER PRESENTATIONS

Lilly Purdue Statistics Seminar, Eli Lilly and Company, Indianapolis IN **Spring 2024**

Statistical Inference with Differential Privacy

Open DP Community Workshop **Summer 2020**

Lightning talk on Binomial inference under differential privacy

Penn State Statistics Graduate Student Association Workshop **Fall 2018**

Introduction to differential privacy	
Center for Research on Computation and Society, Harvard University	Summer 2018
Introduction to differential privacy	
Penn State Statistics Graduate Student Association Workshop	Fall 2017
Introduction to differential privacy	
Penn State DS 300: Privacy and Security for Data Sciences	Fall 2017
Introduction to differential privacy	
Brandeis Mathematics Graduate Student Seminar	Fall 2015
A proof of the 5 color theorem	
Brandeis Combinatorics Seminar	Spring 2015
Topics in matroid representability	
Brandeis Mathematics Graduate Student Seminar	Spring 2015
Topics regarding the Tutte polynomial	
Pi Mu Epsilon Conference, Youngstown OH	Spring 2013
A solution for the 2013 COMAP MCM problem A	
Clarion University High School Mathematics Competition	Fall 2012
Mental math algorithms with proofs and examples	
Cumberland Valley Math Modeling Challenge at Shippensburg University	Fall 2011
A model to predict the economic impacts of different voting systems	

TEACHING EXPERIENCE

Purdue University Department of Statistics, Instructor	Fall 2020-present
CS/STAT 242: Introduction to Data Science, Spring 2024	
STAT 598: Differential Privacy, Fall 2022, Spring 2025	
MA/STAT 519: Probability Theory, Fall 2021, Spring 2023, Spring 2025	
STAT 692: Research Seminar, Fall 2021, Spring 2022	
STAT 417: Statistical Theory, Fall 2020 (online), Fall 2022	
Pennsylvania State University Department of Statistics, Instructor	Spring 2019
Introduction to Probability and Statistics with R for Engineers	
, Spring 2025	
Brandeis University Department of Mathematics, Instructor	Fall 2015, Spring 2016
Integral Calculus	
Brandeis University Department of Mathematics, Grader	Fall 2014, Spring 2015
Multivariate Calculus, Linear Algebra	
Brandeis University Department of Mathematics, Tutor	Fall 2014, Spring 2015
Pre-Calculus, Calculus I & II	
Clarion University Department of Academic Enrichment, Tutor	Fall 2011-Spring 2014
Finite Mathematics, Pre-Calculus, Calculus I & II, Linear Algebra	

SOFTWARE DEVELOPMENT

dapper: Data Augmentation for Private Posterior Estimation in R	Summer 2024
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R package implementation of the method in “Data Augmentation MCMC for Bayesian Inference from Privatized Data.” In collaboration with Kevin Eng and Drs. Ruobin Gong, Nianqiao Ju, and Vinayak Rao. Available on CRAN.

binomialDP: Differentially Private Inference for Binomial Data

Summer 2020

R package implementation of UMP tests and UMA confidence intervals for Binomial test statistics under differential privacy. In collaboration with Tran Tran and Dr. Aleksandra Slavković.

SERVICE

Journal Referee

Journal of the American Statistical Association, Neural Information Processing Systems, International Conference on Machine Learning, Journal of Privacy and Confidentiality, Journal of the Royal Statistical Society Series B, Annals of Statistics, Journal of Computational and Graphical Statistics, Statistica Sinica, among others

Session Organizer, Bayesian, Fiducial, & Frequentist Conference (BFF9)

Spring 2025

Organized a session on statistical inference on privatized data

PhD Qualifying Exam Committee, Purdue University Statistics

Spring 2025

Wrote exam questions and helped to administer the exam

Faculty Mentor, Science Scholars Program, Purdue University

Fall 2024-present

Mentored an undergraduate student from an under-represented minority background

Program Committee, AAAI

Fall 2024

Reviewed articles for the conference

Program Committee, Fairness, Accountability, and Transparency (FAccT)

Spring 2023

Reviewed submissions for the workshop

Colloquium Chair, Purdue University Statistics

Fall 2021-Spring 2022

Organized the Purdue Department of Statistics seminar, invited speakers

Diversity and Inclusion Committee, Purdue University Statistics

2021-present

Program Committee, NeurIPS Workshop: Privacy and Machine Learning

Fall 2021

Reviewed submissions and helped organize the workshop

Program Committee, CCS Workshop: Privacy Preserving Machine Learning

Fall 2021

Reviewed submissions and helped organize the workshop

Graduate Student Admissions, Purdue University Statistics

2021-present

**Program Committee Member, Theory and Practice of Differential Privacy
Summer 2024**

Spring 2021 and

Reviewed submissions and helped organize the workshop

Distinguished Theme Seminar Series, Purdue University

Fall 2020-Fall 2023

Member of the organizing committee (Spring 2021-Fall 2021)

Seminar Moderator (Fall 2020, Fall 2021)

Hiring Committee, Purdue University

Fall 2020 - present

Assistant Professor Search; Escort for interviewees (Fall 2020-Spring 2021)

Assistant and Associate Professor Search (Fall 2021-Spring 2022)

Dream Hire Search (Fall 2023)
Assistant Professor Search (Fall 2024-Spring 2025)

POSTDOCTORAL ADVISOR

Cesare Miglioli, Postdoctoral Researcher

Fall 2024-present

THESIS ADVISOR

Yu Wei Chen, Ph.D. Student

Spring 2024-present

Young Hyun Cho, Ph.D. Student

Spring 2023-present

Co-advised by Will Wei Sun

Yuki Ohnishi, Ph.D. Student

Summer 2022-Spring 2023

Co-advised by Arman Sabbaghi

First job: Postdoctoral Associate, Yale School of Public Health

Zhanyu Wang, Ph.D. Student

Fall 2021-Fall 2023

Co-advised by Guang Cheng (UCLA)

First job: Research Scientist, Meta

OTHER SUPERVISED STUDENTS

Arin Chang, Ph.D. Student

Fall 2024-present

Indirect inference and parametric bootstrap for privatized data

Leo Navarro, Undergraduate Student

Summer 2024-present

Optimize Bayesian inference on privatized data

Kefan Gu, Undergraduate Student

Summer 2024-Fall 2024

Optimize Bayesian inference on privatized data

Pranav Bhakti, Undergraduate Student

Spring 2024-present

Simulations for Bayesian inference on privatized data

Xinlong Du, M.S. Student

Spring 2024-present

R Package development for simulation-based inference

Samuel Forfang, Undergraduate Student

Spring 2024-present

R Package development for simulation-based inference

Aidan Davis, Undergraduate Student

Spring 2024

R Package development for simulation-based inference

Andrew Liu, M.S. Student

Fall 2023-present

Optimize the subsample and aggregate method for confidence intervals

Aishwarya Ramasethu, M.S. Student

Fall 2022-Spring 2023

Research discrete canonical noise distributions and implement binomialDP in OpenDP

Yu-Ju Ku, M.S. Student

Summer 2022-Spring 2023

Implement binomialDP in OpenDP

Burla Ondes, Ph.D. Student in I.E.

Summer 2022

Investigated the EM algorithm to analyze privatized data

Taegyu Kang, PhD Student

Spring 2022-Summer 2024

Differentially private topological data analysis (group project)	
Sehwan Kim, PhD Student	Spring 2022-Summer 2024
Differentially private topological data analysis (group project)	
Formalizing semi-privacy (group project)	
Jinwon Sohn, PhD Student	Spring 2022-Summer 2024
Differentially private topological data analysis (group project)	
Yue Wang, Undergraduate Student	Fall 2021-Summer 2022
Simulation study to compare differentially private hypothesis tests	
Vishnu Suresh, M.S. Student	Spring 2021-Summer 2021
Exploring research topics in differential privacy	
Jacob Moore, Undergraduate Student	Spring 2021-Summer 2021
Developing an R package for approximate conditional sampling	

PHD COMMITTEE

Hyunwoo Chung, Ph.D. Student	Spring 2024-present
Advised by Fei Xue	
Qian Zhang, Ph.D. Student	Fall 2022-present
Advised by Faming Liang	
Yi Chu, Ph.D. Student	Summer 2022-present
Advised by Raghu Pasupathy	
Rajdeep Haldar, Ph.D. Student	Spring 2022-present
Advised by Qifan Song	
Jiajun Liang, Ph.D. Student	Spring 2022-Fall 2023
Advised by Qifan Song	
Xinyi Pei, Ph.D. Student	Spring 2021-present
Advised by Vinayak Rao	

MS COMMITTEE

Andrew Liu, M.S. (chair)	Fall 2023-present
Ian Hunter, M.S.	Spring 2023-present
Nicholas Rosenorn, M.S. (CS & Statistics)	Spring 2023-present
Madison Dunn, M.S. (chair)	Fall 2022-present
Aishwarya Ramasethu, M.S.	Fall 2022-present
Chair of the MS advisory committee. Reading course in differential privacy	
Burla Ondes, Ph.D. Student in Industrial Engineering, M.S. in Statistics	Fall 2022-present
Yu-Ju Ku, M.S. (chair; CS & Statistics)	Summer 2022-Spring 2023
Quisi Zhang, M.S.	Spring 2022-present
Qi Zhong, M.S.	Spring 2022-Fall 2022
Pratiksha Agrawal, M.S.	Spring 2022-present
Yi-Min Yang, M.S.	Fall 2021-Spring 2023

Vidhi Jain, M.S.	Fall 2021-Fall 2022
Yu-Wen Wang, M.S.	Fall 2021-Spring 2023
Yi-Ting Hung, M.S.	Fall 2021-present
John Lambrecht, M.S. (chair)	Spring 2021-Spring 2022
Chair of the MS advisory committee. Reading course in differential privacy	
Vishnu Suresh, M.S.	Spring 2021-December 2022

PROFESSIONAL ORGANIZATIONS

Center for Education and Research in Information Assurance and Security (CERIAS), Purdue University	Spring 2024-present
Affiliate faculty member	
Privacy and Confidentiality Interest Group, American Statistical Association	Fall 2023-present
Member	
Regenstrief Center for Healthcare Engineering, Purdue University	Summer 2022-present
Associate member	
American Statistical Association	Summer 2017-present
Institute of Mathematical Statistics	Summer 2017-present