Saptarshi Chakraborty

Curriculum Vitae

Updated: July 2025

CONTACT INFORMATION

Department of Biostatistics
School of Public Health and Health Professions (SPHHP)
University at Buffalo, State University of New York (SUNY)
718 Kimball Tower
Buffalo, NY 14214, USA

Email: chakrab2@buffalo.edu; chakra.saptarshi@gmail.com
Homepage: www.saptarshichakraborty.net
ORCID: 0000-0002-3121-9174
Google Scholar:
https://scholar.google.com/citations?user=13KohvEAAAAJ&hl=en&authuser=2

EDUCATION AND TRAINING

2018 – 2020 **Postdoctoral Research in Statistical Genomics**, Memorial Sloan Kettering Cancer Center, New York, NY, USA. **Research topic:** Statistical Modeling of High-dimensional Cancer Genomic Data.

2013 – 2018 **Ph.D. in Statistics**, University of Florida, Gainesville, Florida, USA. **Thesis Title:** Theory and Applications of Markov Chain Monte Carlo Techniques.

2011 – 2013 **M.S. (M. Stat.) in Statistics**, Indian Statistical Institute, Kolkata, India. **Specialization:** Applied Statistics and Data Analysis. *Graduated in the First Division with Distinction.*

2008 – 2011 **B.Sc. (Hons.) in Statistics**, Presidency College, Kolkata, India. *Graduated in the First Class (First Division) and Ranked Third in the Merit List Published by the University of Calcutta*.

EMPLOYMENT

2020 – Present **Assistant Professor of Biostatistics (Tenure Track),** School of Public Health and Health Professions (SPHHP), University at Buffalo, State University of New York (SUNY). Buffalo, NY, USA.

PROFESSIONAL APPOINTMENTS

2024 – Present **Head of Professional Advancement,** Clinical and Translational Science Institute (CTSI) Biostatistics Epidemiology & Research Design (BERD) Core, University at Buffalo SUNY.

2022 – 2024 **Director, BERD Statistical Consulting Lab**, CTSI BERD Core, University at Buffalo SUNY.

2022 – Present **Affiliated Faculty**, Institute for Artificial Intelligence and Data Science, University at Buffalo SUNY.

2020 – Present **Member**, CTSI BERD Core, CTSI, University at Buffalo SUNY.

RESEARCH INTERESTS

Computational Statistics, Bayesian modeling and computations, multilevel models, Monte Carlo methods, statistical modeling in cancer genomics and computational biology, statistical methods for postmarket medical product safety/pharmacovigilance and real-world evidence, statistical machine learning, big and high-dimensional data, dimension reduction, statistical software development, statistical modeling in biomedical research.

PUBLICATIONS

Notes:

a. *The horizontal lines separate publications before and after joining the University at Buffalo, SUNY.*
b. *Asterisk (*) indicates that the first/co-author is a PhD advisee under the supervision of Dr. Chakraborty.*
c. *Dagger (†) indicates senior authorship for Dr. Chakraborty.*

Refereed Journal Articles

Theory and Methodology Articles

1. Tan, Y.*, Markatou, M., **Chakraborty, S†.** (2025). Flexible Empirical Bayesian Approaches to Pharmacovigilance for Simultaneous Signal Detection and Signal Strength Estimation in Spontaneous Reporting Systems Data. Statistics in Medicine. *To appear*. doi: 10.1002/sim.70195.

2. **Chakraborty, S.**, Guan, Z., Kostrzewa, C.E., Shen, R., and Begg, C.B. (2024). Identifying Somatic Fingerprints of Cancers Defined by Germline and Environmental Risk Factors. Genet Epidemiol. 2024 Apr 30. doi: 10.1002/gepi.22565. EPUB ahead of print. PMID: 38686586.

3. **Chakraborty, S.**, Guan, Z., Begg, C.B., and Shen, R. (2024). 'Topical hidden genome': a Bayesian multilevel context and topic model for genome-driven cancer-type characterization problems. *Biometrics*, 80(2), ujae030.

4. **Chakraborty, S.** and Su, Z. (2023). A comprehensive Bayesian framework for envelope models. *Journal of the American Statistical Association, Theory & Methods*. 1-11.

5. Shen Y, Park Y, **Chakraborty S**, Zhang C. (2023). Bayesian simultaneous partial envelope model with application to an imaging genetics analysis. *New England Journal of Statistics in Data Science*. 1(2):237-–269 (2023).

6. Mukherjee S, Khare K, and **Chakraborty S**. (2023). Convergence properties of data augmentation algorithms for high-dimensional robit regression. *Electronic Journal of Statistics*. 17(1):19-69(2023).

7. **Chakraborty, S.**, Markatou, M., and Ball, R. (2023). Likelihood Ratio Test Based Drug Safety Assessment using R package pvLRT. *R Journal*, 15(1).

8. **Chakraborty, S.**, Liu, A., Ball, R., and Markatou, M. (2022). On the Use of the Likelihood Ratio Test Methodology in Pharmacovigilance. *Statistics in Medicine*. 1(27), pp.5395-5420.

9. Lee, M., **Chakraborty, S.**, and Su, Z. (2022). A Bayesian approach to envelope quantile regression. *Statistica Sinica*. 32, 1-19

10. **Chakraborty, S.** and Wong, S. W. (2022). On the circular correlation coefficients for bivariate von Mises distributions on a torus. *Stat Papers*.

11. **Chakraborty, S.**, Bhattacharya, B., and Khare, K. (2022). Estimating accuracy of the MCMC variance estimator: asymptotic normality for batch means estimators. *Statistics and Probability Letters*, 109337.

12. **Chakraborty, S.**, Ecker, B. L., Seier, K., Aveson, V. G., Balachandran, V. P., Drebin, J. A., D'Angelica, M. I., Kingham, T. P., Sigel, C. S., Soares, K. C., Vakiani, E., Wei, C., Chandwani, R., Gonen, M., Shen, R., Jarnagin, W. R. (2021). Genome-derived Classification Signature for Ampullary Adenocarcinoma to Improve Clinical Cancer Care. *Clinical Cancer Research*. (27) (21) 5891-5899.

EMAIL: *chakrab2@buffalo.edu; chakra.saptarshi@gmail.com*
HOMEPAGE: *www.saptarshichakraborty.net*
ORCID: *0000-0002-3121-9174*
LinkedIn: *chakrab2* • ***X (formerly Twitter):*** *SaptarshiCh* • ***GitHub:*** *c7rishi*

13. **Chakraborty, S**., Martin, A., Guan, Z., Begg, C. B., and Shen, R. (2021). Mining mutation contexts across the cancer genome to map tumor site of origin. *Nature Communications*. **12,** 3051.

14. **Chakraborty, S.** and Wong, S. W. (2021). BAMBI: An R package for Fitting Bivariate Angular Mixture Models. *Journal of Statistical Software*, 99(11), 1–69.

15. **Chakraborty, S.** Tian, L, Tseng, Y, and Wong, S. W. (2021). Bayesian analysis of coupled cellular and nuclear trajectories for cell migration. *Biometrics* 1-12.

---

16. **Chakraborty, S.**, Begg, C. B., and Shen, R. (2020). Using the "Hidden" Genome to Improve Classification of Cancer Types. *Biometrics.* 2020;1–11.

17. **Chakraborty, S.**, Arora A., Begg, C. B. and Shen, R. (2019). Using Somatic Variant Richness to Mine Signals from Rare Variants in the Cancer Genome. *Nature Communications* **10**, 5506.

18. **Chakraborty, S.** and Khare, K. (2019). Consistent estimation of the spectrum of trace class data augmentation algorithms. *Bernoulli.* 25(4B), 2019, 3832–3863.

19. **Chakraborty, S.** and Khare, K. (2017). Convergence properties of Gibbs samplers for Bayesian probit regression with proper priors, *Electronic Journal of Statistics.* 11, 177-210.

20. Maji, A., **Chakraborty, S.**, and Basu, A. (2017). Statistical Inference based on the Logarithmic Power Divergence. *Society For Application of Statistics And Allied Sciences*, 2 (1), 39–51.

Collaborative Applied Scientific Articles

21. Oliveira RCG de, Khalid H, Zhang Z, **Chakraborty S**, Benzano D, Kruger JS, McKernan SC (2025). Visit Characteristics Associated With Pediatric Dental Appointment No-Shows in an Academic Dental Setting. International Journal of Dentistry. 2025(1):2114933.

22. Zhang, H., Zheng, E., Zheng, W., Huang, C., Xi, Y., Cheng, Y., Yu, S., **Chakraborty, S.**, Bonaccio, E., Takabe, K. and Fan, X.C. (2025). OneTouch Automated Photoacoustic and Ultrasound Imaging of Breast in Standing Pose. *IEEE Transactions on Medical Imaging*. PMID: 40504720. DOI: 10.1109/TMI.2025.3578929. (Online ahead of print.)

23. Petrela, R.B., Chhetri, C.D., Najafi, A., Zhang, Z., Rinkoski, T.A., Wieben, E.D., Fautsch, M.P., **Chakraborty, S.**, Millen, A.E. & Patel, S.P. (2025). Associations between

measures of oestrogen exposure and severity of Fuchs endothelial corneal dystrophy. *BMJ Open Ophthalmology*, 10(1), p.e001884. doi: 10.1136/bmjophth-2024-001884.

24. Kutscher, H.L., Tamblin, M., Karki, S., Chaves, L., Baird, M., Parvin, A., Smith, E., Dube, A., Zhang, Z., **Chakraborty, S.** Kenney, P., and Raynolds, J.L. (2024). Inhalational Delivery of β-glucan-chitosan-poly (lactic co-glycolic) acid Nanoparticles Enhance Alveolar Macrophage Rifampin Concentrations for the Treatment of Tuberculosis. *Advanced Therapeutics*, p.2400057.

25. Penman, S.L., Roeder, N.M., Wang, J., Richardson, B.J., Freeman-Striegel, L., Krayevsky, A., Eiden, R.D., **Chakraborty, S**., and Thanos, P.K., (2024). Vaporized Δ9-tetrahydrocannabinol exposure in utero has negative effects on attention in a dose-and sex-dependent manner. *Pharmacology Biochemistry and Behavior*, 173808.

26. Penman, S.L., Roeder, N.M., Wang, J., Richardson, B.J., Pareek, O., Freeman-Striegel, L., Mohr, P., Khan, A., Eiden, R.D., **Chakraborty, S.**, and Thanos, P.K. (2024). Vaporized nicotine in utero results in reduced birthweight, increased locomotion, and decreased voluntary exercise, dependent on sex and diet in offspring. *Psychopharmacology*, 1-26.

27. Wang TC, Dollahon CR, Mishra S, Patel H, Abolghasemzade S, Singh I, Thomazy V, Rosen DG, Sandulache VC, **Chakraborty S**, Lele, Tanmay. *Extreme wrinkling of the nuclear lamina is a morphological marker of cancer* (2024). *NPJ Precision Oncology*. 8(1):1–12.

28. Rosi-Schumacher, M., DiNardo, L. A., Reese, A. D., Gupta, S., Nagy, R. E., **Chakraborty, S.**, and Carr, M. M. (2024). Comparison of Surgical Techniques for the Treatment of Congenital Nasal Pyriform Aperture Stenosis: A Systematic Review. *Annals of Otology, Rhinology & Laryngology*, 00034894241242179.

29. Roeder, N M; Penman, S L; Richardson, B J; Wang, J; Freeman-Striegel, L; Khan, A; Pareek, O; Weiss, M; Mohr, P; Eiden, R D; **Chakraborty, S**; Thanos, P K. (2024). Vaporized ∆9-THC in utero results in reduced birthweight, increased locomotion, and altered wake-cycle activity dependent on dose, sex, and diet in the offspring. *Life Sciences*: 122447. doi: 10.1109/TUFFC.2023.3283139.

30. Huang, C; Cheng, Y; Zheng, W; Bing, R; Zhang, H; Komornichi, I; Harris, L; Arany, P; **Chakraborty, S**; Zhou, Q; Xu, W; Xia, J. (2023). Dual-scan photoacoustic tomography for the imaging of vascular structure on foot. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, *70*(12), 1703-1713..

31. Atanasova, K, **Chakraborty, S** (*co-first author*), Ratnayake, R, Khare, K, Luesch, H. (2022). An epigenetic small molecule screen to target abnormal nuclear morphology in

human cells. To appear in Molecular Biology of the Cell. *Molecular Biology of the Cell*, 33(6), ar45.

32. Batra, A, Barnard, A, Lott, D J, Willcocks, R, Forbes, S C, **Chakraborty, S**, Daniels, M, Arbogast, J, Triplett, W, Henricson, E, Dayan, J G, Schmalfuss, C, Sweeney, L, Byrne, B J, McDonald, C, Vandenborne, K, Walter, G A. (2022). Longitudinal changes in cardiac function in Duchenne muscular dystrophy population as measured by magnetic resonance imaging. *BMC Cardiovascular Disorders*, 22(1), 260.

33. Ambruster, C.E., Brauer, A.L., Humby, M.S., Shao, J., **Chakraborty, S.** (2021). Prospective assessment of catheter-associated bacteriuria in nursing home residents: clinical presentation, epidemiology, and colonization dynamics. *JCI Insight*. Oct 8;6(19):e144775.

---

34. Cassidy, D. J., **Chakraborty, S.**, Panda, N., McKinley, S. K., Mansur, A., Hamdi I., Mullen, J., Petrusa, E., Phitayakorn, R., and Gee, D. (2020). The Surgical Knowledge "Growth Curve": Predicting ABSITE Scores and Identifying "At-Risk" Residents. *Journal of Surgical Education*.

35. Barnard, A. M., Wilcox, R., Forbes, S.C., Daniels, M. J., **Chakraborty, S.**, Lott, D., J., Senesac, C. R., Arora, H., Sweeny, L., Walter, G. H., and Vandenborne, K. H. E. (2020). MR biomarkers predict clinical function in Duchenne muscular dystrophy. *Neurology*, 94(9), e897-e909.

36. Rooney, W. D., Berlow, Y. A., Triplett, W. T., Forbes, S. C., Willcocks, R. J., Wang, D, Arora, H, Senesac, C, Lott, D. J., Finkel, R., Russman, B. S., Finanger, E. L., **Chakraborty, S.**, O'Brien, E, Moloney, B, Barnard, A, Sweeney, H. L., Daniels, M. J., Walter, G. A., and Vandenborne, K. (2020). Modeling disease trajectory in Duchenne muscular dystrophy. *Neurology*, 94(15), e1622-e1633.

37. Vaziri, S., Awan, O., Porche, K., Scott, K., Sacks, P., Dru, A. B., **Chakraborty, S.**, Khare, K., Hoh, B., and Rahman, M. (2019). Reimbursement Patterns for Neurosurgery: Analysis of the NERVES Survey Results from 2011-2016. *Clinical Neurology and Neurosurgery*, p.105406.

38. Chatterjee, N., Nair, P.K.R., **Chakraborty, S.**, and Nair, V.D. (2018). Changes in soil carbon stocks across the Forest-Agroforest-Agriculture/Pasture continuum in various agroecological regions: A meta-analysis. *Agriculture, Ecosystems and Environment*, 266, 55-67.

39. Vaziri, S., Wilson, J., Abbatematteo, J., Kubilis, P., **Chakraborty, S.**, Kshitij, K., and Hoh, D. J. (2017). Predictive performance of the American College of Surgeons universal risk calculator in neurosurgical patients. *Journal of Neurosurgery*, 1-6.

Book Chapter

1. **Chakraborty, S.** Genome-driven cancer site characterization: an overview of the hidden genome model. (2024). *Modern inference based on health-related markers Biomarkers and Statistical Decision Making.* Elsevier Inc. Editors: Vexler, A.; Yu, J.

Submitted/In-revision Scholarly Articles

1. Hua, S.*, Guan, Z., **Chakraborty, S†.** Inferring cancer-type-specific latent mutation signatures using a Bayesian tree-based supervised topic model.

2. Huang, X.*, **Chakraborty, S†.** A Bayesian framework for medical product safety assessment using correlated spontaneous reporting system data.

3. Wang, S., **Chakraborty, S.**, Qin, Q., Bai, R. Neural-*g*: A Deep Learning Framework for Mixing Density Estimation.

4. **Chakraborty, S**., Khare, K, Michailidis, G. A generalized Bayesian approach for high-dimensional robust regression with serially correlated errors and predictors.

5. Liu, A., Markatou, M., **Chakraborty, S.**, and Ball, R. A pattern discovery algorithm for pharmacovigilance signal detection.

6. Roeder, N.M., Penman, S.L., Richardson, B.J., Wang, J., Freeman-Striegel, L., Pareek, O., Eiden, R., **Chakraborty, S.**, Thanos, P. Nicotine e-cigarette exposure in utero diminishes spatial memory and has negative effects on attention in a dose-, diet- and sex-dependent manner.

7. Tan, Y.*, Markatou, M., **Chakraborty, S†.** pvEBayes: An R Package for Empirical Bayes Methods in Pharmacovigilance

Open-Source Statistical Software

1. `BAMBI`: An R package for Bivariate Angular Mixture Models. *Downloaded from the Comprehensive R Archive Network (CRAN) over 50,000 times.* Link.
2. `variantprobs`: An R package for estimating probabilities and expected numbers of mutations in the tumor genome. Link.
3. `hidgenclassifier`: An R package implementing Key functions for Bayesian hidden genome classifiers. Includes functions for preprocessing genomic data, fitting and predicting from hidden genome classifiers. Link.
4. `pvLRT`: An R package for likelihood ratio test-based methods for pharmacovigilance. Link.

5. `Benvlp: An R package for comprehensive Bayesian envelope modeling.`
6. `bayeshidgenclassifier`: An R package for full Bayesian topic modeling for latent mutational signature discovery driven by cancer risk factors
7. pvbayes: An R package for various Bayesian methods for pharmacovigilance.
8. pvEBayes: An R package for various empirical Bayesian methods for pharmacovigilance.

GRANTS

Funded Research

1. The urothelial glycosaminoglycan layer: composition and contribution to pathogen fitness during catheter-associated urinary tract infection. (PI: Ambruster, C.).
   Source: National Institute of Diabetes and Digestive and Kidney Diseases.
   Role: Co-investigator. **Period:** June 2024 - April 2029.
   Total Award Amount: $3,045,103 **Yearly Effort:** 5%.

2. R01EB029596: Multiparametric photoacoustic and ultrasonic imaging of the breast in cranial-caudal view (PI: Xia, J.).
   Source: National Institute of Biomedical Imaging and Bioengineering.
   Role: Co-investigator. **Period:** April 2020 - December 2023.
   Total Award Amount: $1,576,743 **Yearly Effort:** 5-10%.

3. R01EB028978: Development of photoacoustic tomography for non-invasive, label-free imaging of tissue perfusion in chronic wounds (PI: Xia, J.).
   Source: National Institute of Biomedical Imaging and Bioengineering
   Role: Co-investigator. **Period:** May 2021 - February 2025.
   Total Award Amount: $1,643,693` **Yearly Effort:** 5-10%.

4. Metagenomic sequencing for improved diagnosis of catheter-associated urinary tract infection (PI: Armbruster, C.).
   Source: Board of Regents of the University. System of Georgia on behalf of Augusta University; National Institute of Health.
   Role: Co-investigator **Period:** July 2023-June 2024.
   Total award amount: $100,000 **Yearly Effort:** 1.6%.

5. 5UL1T1001412-06: University at Buffalo Clinical and Translational Science Institute (PD/PI: Murphy, T.F.).
   Source: National Institute of Health: National Center for Advancing Translational Sciences (NIH/NCATS).
   Role: Co-investigator **Period:** Dec 2019 - Dec 2024
   Total Award Amount: $19,231,451 **Yearly Effort:** 5%.

6. FP00009056: mHealth Technologies for Assessing Blood Perfusion of Chronic Wounds (PI: Xu, W.).

Source: National Institute of Health
Role: Co-investigator **Period:** November 2023 - October 2027
Total Award Amount: $3,041,990 **Yearly Effort:** 8.3%.

7. R01CA251339: Harnessing rare variants for tumor classification (PI: Shen, R.).
   Source: National Cancer Institute (HHS - NIH).
   Role: Consultant **Period:** April 2021 - March 2024
   Total Award Amount: $404,888.00 **Yearly Effort:** $10,000/year.

8. Evaluating LRT for Post-Market Surveillance of Adverse Events (PI: Markatou, M.).
   Source: US Food and Drug Administration (FDA)
   Role: Co-investigator **Period:** October 2020 – September 2022
   Total Award Amount: $527,735.00 **Yearly Effort:** 5-20%.

Submitted/Under Review PI/Co-PI Grants

1. Meta-Analysis of Mutational Signatures from Diverse and Heterogeneous Genomic Platforms Using Bayesian Supervised Topic Models.
   Source: National Institute of Health/National Cancer Institute
   Role: PI **Period**: July 2025 – June 2029
   Total Req. Amount: $397,441 **Yearly Effort**: 10%.

2. Supervised Bayesian Topic Models to Infer Somatic Mutation Patterns linked with Cancer Etiology and Prognosis.
   Source: National Institute of Health/National Cancer Institute
   Role: PI **Period**: December 2025 – Nov 2029
   Total Req. Amount: $1,958,320 **Yearly Effort**: 25%.

3. Collaborative Research: FRGMS: Bayes estimation and uncertainty quantification for robust statistical learning.
   a. **Source:** National Science Foundation
   b. **Role:** Co-PI **Period:** July 2025 – June 2028
   c. **Total Req. Amount:** $399,949 **Yearly Effort:** 12%.

RESEARCH PRESENTATIONS

Invited and Selected Presentations at International-Level Conferences

1. Hua, S., Guan, Z., Chakraborty, S. Inferring cancer risk factor-specific mutational signatures using a Bayesian forest-based supervised topic model. Presentation given at the invited and selected session *Advancing Methods for Risk Factor Prediction at the Western North American Region (WNAR) of International Biometric Society (IBS) Spring Meeting 2025*. Whistler, British Columbia, Canada. June 2025.

2. Tan, Y., Markatou, M., **Chakraborty, S.** Flexible Empirical Bayesian Approaches to Pharmacovigilance for Simultaneous Signal Detection and Signal Strength Estimation in Spontaneous Reporting Systems Data. Presentation given at the Invited Session *Bayesian and Empirical Methods for Prediction, Inference, and Signal Detection* at International Indian Statistical Association (IISA) conference 2025. Lincoln, Nebraska, USA. June 2025.

3. **Chakraborty, S.**, Guan Z., Begg, C.B., Shen, R. Topical Hidden Genome: Discovering Latent Cancer Mutational Topics Using a Bayesian Multilevel Context-Learning Approach. Presentation given at the Selected and Invited Topic Contributed Session *Recent Advances in Inferential Statistical Methods in Genomics* at Joint Statistical Meetings 2024. Portland, Maryland, USA. August 2024.

4. **Chakraborty S.**, Liu A., Ball R., Markatou M. On the Use of the Likelihood Ratio Test Methodology in Pharmacovigilance. Invited presentation given in the session *Navigating the Intersection: Regulatory Perspectives and Statistical Innovations for Real-World Data* at ENAR 2024 Spring Meeting. Baltimore, Maryland, USA. March 2024.

5. **Chakraborty, S.**, Guan Z., Begg, C.B., Shen, R. Using the “Hidden Genome” to Mine Mutation Contexts Across the Cancer Genome to Map Tumor Site of Origin. Invited presentation in the session *Recent Advances in Inferential Statistical Methods in Genomics* at ENAR 2023 Spring Meeting. Nashville, Tennessee. March 2023.

6. Mukherjee, S., Khare, K., **Chakraborty, S.** Convergence properties of data augmentation algorithms for high-dimensional robit regression. Invited presentation given (virtually) in the Advances in Markov Chain Monte Carlo (EO721) session at CMStatistics 2022 Conference. London, United Kingdom, December 2022.

7. **Chakraborty, S.**, Su, Z. A Comprehensive Bayesian Approach to Envelope Models. Invited Presentation given (virtually) at EcoSta 2022 Hybrid Conference. Ryouko University, Japan, June, 2022.

8. **Chakraborty S**, Su, Z. A Comprehensive Bayesian Framework for Envelope Models. Invited topic contributed oral presentation given (virtually) at Joint Statistical Meeting Virtual Conference, USA, August 2021.

9. **Chakraborty, S.**, Su, Z. A Comprehensive Bayesian Framework for Envelope Models. Invited oral presentation given (virtually) at CFE-CMStatistics conference, London, UK, December 2020.

10. **Chakraborty, S.**, Khare, K. Convergence properties of Gibbs samplers for Bayesian probit regression with proper priors. Invited oral Presentation given at the Conference of Indian Statistical Association, Hyderabad, India, 2017.

Invited Presentations at Regional Domestic Conferences/Meetings

1. **Chakraborty, S.** Topical Hidden Genome: Discovering Latent Cancer Mutational Topics Using a Bayesian Multilevel Context-Learning Approach. Presentation given at Special Invited Session for Early Career Researcher at the Basu-Bahadur Conference: Theory and Foundations of Statistics in the Era of Big Data. Florida State University, Tallahassee, Florida. April 19-21, 2024.

2. **Chakraborty, S.**, Guan, Z., Martin, A., Begg, C B, and Shen, R. Mining mutation contexts across the cancer genome to map tumor site of origin. Invited Oral Presentation given at UPSTAT-2022 Conference. University at Buffalo, Buffalo, NY, May 2022.

3. **Chakraborty, S.** Statistical Learning in Large-Scale Genome-Driven Cancer Characterization Problems. Invited Oral Presentation given (virtually) at IAD DAYS Conference. University at Buffalo, Buffalo, NY, May 2022.

4. **Chakraborty, S.**, Begg, C B, and Shen, R. Research Overview: Mining somatic mutations across the cancer genome to map tumor site of origin. Invited Oral Presentation given at SDOH: Methods for Identification & impact of Treatment of Opioid users. University at Buffalo, SUNY, USA, July 2021.

Invited Presentations at University/Research Institute Colloquia

1. Hua, S., Guan, Z., **Chakraborty, S.** Inferring cancer-type-specific latent mutation signatures using a Bayesian tree-based supervised topic model. Invited presentation given (virtually) at the Department of Mathematics and Statistical Science Colloquium at the University of Idaho. Moscow, Idaho. February 2025.

2. **Chakraborty, S.**, Guan Z., Begg, C.B., Shen, R. Topical Hidden Genome: Discovering Latent Cancer Mutational Topics Using a Bayesian Multilevel Context-Learning Approach. Invited presentation given at the Department of Mathematics & Statistics Seminar Series at Old Dominion University. Norfolk, Virginia. November 2024.

3. **Chakraborty, S.**, Guan Z., Begg, C.B., Shen, R. Topical Hidden Genome: Discovering Latent Cancer Mutational Topics Using a Bayesian Multilevel Context-Learning Approach. Invited presentation given at the Department of Biostatistics Research Seminar Series at Virginia Commonwealth University. Arlington, Virginia. March 2024.

4. **Chakraborty, S.**, Guan Z., Begg, C.B., Shen, R. Topical Hidden Genome: Discovering Latent Cancer Mutational Topics Using a Bayesian Multilevel Context-Learning Approach. Invited presentation given at the School of Statistics Seminar Series at the University of Minnesota. Minneapolis, Minnesota. October 2023.

5. **Chakraborty, S.**, Begg, C.B., Shen, R. Using the “hidden genome” to mine mutation contexts across the cancer genome to map tumor site of origin. Invited seminar given

(virtually) at the Mathematics Statistics Colloquium at the Bowling Green State University. Bowling Green, Ohio, USA. October, 2022.

6. **Chakraborty, S.**, Begg, C.B., Shen, R. Using the "hidden genome" to mine mutation contexts across the cancer genome to map tumor site of origin. Invited seminar given (virtually) at the Statistics Seminar Series at the University of Cincinnati. Cincinnati, Ohio, USA. September 2022.

7. **Chakraborty, S.** Statistics for Sizable Data. Invited Presentation given at Biostatistics New Graduate Students' Orientation. University at Buffalo SUNY. Buffalo, NY, USA. August 2021.

8. **Chakraborty, S.**, Guan, Z, Arora, A., Ecker, B., Martin, A., Jarnagin, W, Gonen M, Seier K, Begg C B, and Shen R. Mining mutation contexts across the cancer genome to map tumor site of origin with applications in Ampullary Adenocarcinoma. Invited Oral Presentation given at University at Buffalo Cancer Research Consortium Seminar Series, Buffalo, NY, July 2021.

9. **Chakraborty S**, Arora A, Shen R, Begg C. B. Using Somatic Variant Richness to Mine Signals from Rare Variants & Using the "Hidden" genome. Oral presentation given at Epidemiology and Biostatistics departmental seminar series, Memorial Sloan Kettering Cancer, New York, NY, January 2020.

10. **Chakraborty S**, Shen R., Begg C. B. Estimating Somatic Variant Richness in the Cancer Genome. Invited oral presentation given at the Epidemiology & Biostatistics Departmental Seminar Series, MSKCC, New York, NY, 2019.

Contributed Presentations at International-Level Conferences

1. **Chakraborty S**, Arora A, Shen R, Begg C. B. Using Somatic Variant Richness to Mine Signals from Rare Variants in the Cancer Genome. Contributed poster presentation given at the annual postdoc symposium at the Memorial Sloan-Kettering Cancer Center, New York, NY, 2019.

2. **Chakraborty, S.**, Khare, K. Consistent estimation of the spectrum of trace class data augmentation algorithms. Contributed oral presentation given at ENAR, Atlanta, GA, 2018.

3. **Chakraborty, S.**, Wong, S. W. BAMBI: An R package for bivariate angular mixture models. Contributed oral presentation given at ENAR, Washington, D.C., 2017.

4. **Chakraborty, S.**, Khare, K. Consistent estimation of the spectrum of trace class data augmentation algorithms. Contributed oral presentation given at the Joint Statistical Meetings, Baltimore, MD, 2017.

AWARDS AND HONORS

2025	**UB Exceptional Scholars: Young Investigator Award 2024-2025.** University at Buffalo SUNY. Buffalo, NY USA.
2024	**Outstanding Junior Researcher 2023-2024**, School of Public Health and Health Professions, University at Buffalo SUNY. Buffalo, NY, USA.
2015, 2016, 2017	**Graduate School Travel Award**, University of Florida, Gainesville, FL, USA.
2013 – 2018	**Graduate School Fellowship,** University of Florida, Gainesville, FL, USA
2013	**First Division with Distinction in Statistics.** Indian Statistical Institute, Kolkata, West Bengal, India.
2011	**Graduate Merit List for B.Sc. (Hons.) in Statistics – Ranked 3rd,** University of Calcutta, Kolkata, West Bengal, India.
2008 – 2011	**Innovation in Science Pursuit for Inspired Research (INSPIRE) Scholarship,** Department of Science & Technology, Government of India, India.

PROFESSIONAL MEMBERSHIP

2015 – Present	American Statistical Association
2016 – Present	International Biometric Society (IBS) Eastern North American Region (ENAR)
2020 – Present	International Indian Statistical Association
2022 – Present	International Biometric Society

TEACHING AND MENTORING

Doctoral Committee Chair/Co-chair

Current Committees

1. **Shuliang Yu.** PhD Student at Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Fall 2024-Present).

2. **Yihao Tan.** PhD Student at Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Spring 2023-Present). *Co-Chair: Prof. Marianthi Markatou.*

3. **Xinwei Huang.** PhD Student at Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Fall 2022-Present).

Past Committees

4. **Shuangcheng Hua.** PhD Student at Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Fall 2024). *Primary Chair: Prof. Changxing Ma.* Current Position: Biostatistician at Abbvie.

Doctoral Committee Member

Current Committees

1. **Samantha Smith.** PhD Student, Department of Epidemiology and Environmental Health, SPHHP, University at Buffalo SUNY. (Fall 2023 – Present).

2. **Md Imran Khan.** PhD Student, Genetics, Genomics and Bioinformatics Graduate Program, Jacobs School of Medicine and Biomedical Sciences, University at Buffalo SUNY. (Spring 2024 – Present).

Past Committees

3. **Shuyi Liang.** PhD Student, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Spring 2024).

4. **Joseph Boccardo.** PhD Student. Department of Biostatistics, SPHHP, University at Buffalo SUNY (Spring 2025).

5. **Xueqing Zhang.** PhD Student, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Fall 2024).

6. **Anran Liu.** PhD Student, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Summer 2024).

7. **Junyu Nie.** PhD Student, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Spring 2023).

8. **Jiefei Wang.** PhD Student, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Spring 2022).

Masters' Committee Chair

Current Committees

1. **Yen Ling Liu.** MS Student, Department of Biostatistics, SPHHP, University at Buffalo. (Fall 2024 – Present).

Past Committees

2. **Shuliang Yu.** Graduate Student at Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Fall 2023 - Spring 2024).

3. **Jiahui Shao.** MS Student at Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Spring 2021 - Summer 2022).

Masters' Committee Member

1. Will Tanberg. MS Student, Department of Biostatistics, SPHHP, University at Buffalo, SUNY. (Spring 2025).

2. **Tara Brennan.** MS Student, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Spring 2025).

3. **Joe DiBiase.** MS Student, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Spring 2025).

4. **Amanda Bernas.** MS Student, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Spring 2024).

5. **Jingyun Qian.** MS Student, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Spring 2024).

6. **Sarah Metz.** MS Student, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Spring 2023).

7. **Samantha Brosius.** MA Student, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Summer 2022).

8. **Yihao Tan.** MA Student, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Spring 2022).

9. **Sean Knipe.** MS Student, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Spring 2021).

BERD Consulting Lab Graduate Research Assistant Advisor

1. **Jia Wang.** PhD Candidate and Graduate Research Assistant, Department of Biostatistics. Statistics Consulting Lab, BERD Core, CTSI, University at Buffalo SUNY. Fall 2022 – Spring 2024.

2. **Zhaoqi Zhang.** PhD Candidate and Graduate Research Assistant, Department of Biostatistics. Statistics Consulting Lab, BERD Core, CTSI, University at Buffalo SUNY. Fall 2022 – Spring 2024.

Undergraduate/Graduate Student Mentoring on Internship/Project

1. **Cindy Liu.** BS student at the University at Buffalo, SUNY. Project done at the BERD Winter Institute for Biostatistics 2022, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Winter 2023).

1. **Ethan Tong.** BS student at the University at Binghamton, SUNY. Project done at the BERD Winter Institute for Biostatistics 2022, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Winter 2023).

2. **Ashutosh Rastogi.** MS student at the University at Buffalo, SUNY. Project done on Data Visualization with R and ggplot2. Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Fall 2022, Winter 2023).

3. **Andrew Mosbo.** BS student at the University at Buffalo, SUNY. Project done at the BERD Winter Institute for Biostatistics 2022, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Winter 2022).

4. **Michelle Gagliardo.** BS student at SUNY Geneseo. Project done at the BERD Winter Institute for Biostatistics 2022, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Winter 2022).

5. **Tinh Ho.** BS student at the University at Buffalo, SUNY. Project done at the BERD Winter Institute for Biostatistics 2022, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Winter 2022).

6. **Alexandra Vool.** BS student at the University at Buffalo, SUNY. Project done at the BERD Winter Institute for Biostatistics 2021, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Winter 2021).

7. **Jason Caballes.** BS student at the University at Buffalo, SUNY. Project done at the BERD Winter Institute for Biostatistics 2021, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Winter 2021).

8. **Victoria Tripodi.** BS student at the University at Buffalo, SUNY. Project done at the BERD Winter Institute for Biostatistics 2021, Department of Biostatistics, SPHHP, University at Buffalo SUNY. (Winter 2021).

9. **Ethan Ashby.** BS student at Pomona College. Project done at the Quantitative Sciences Undergraduate Research Experience (QSURE) program, Department of Epidemiology & Biostatistics, Memorial Sloan-Kettering Cancer Center, New York, NY, USA. Co-mentored with Dr. Ronglai Shen. (Summer 2020).

Faculty Mentoring on Grant Applications

1. **Dr. Gillian Franklin, MD, PhD, MPH.** Assistant Professor Health Sci., Biomedical Informatics, University at Buffalo SUNY. Quantitative Mentoring for CTSA K Grant. (Fall 2022 – Spring 2023).

Course Teaching

At the University at Buffalo, SUNY

1. **Topics in Advanced Modeling (PhD Level; Credit: 3.0; Average class size: 4-8).** Provides a PhD-level introduction to advanced statistical modeling techniques useful for complex problems beyond the classical linear models. Specific topics include models for binary response data such as probit/logit models, analysis of discrete ordinal responses, models for count data, log-linear models for contingency tables, mixed effects models, and Bayesian methods. University at Buffalo, SUNY. Spring 2023, 2024, 2025.

2. **Statistical Data Mining I (Masters' Level; Credit: 3.0; Average class size: 60-90).** Presents statistical models for statistical learning, inference, and prediction. Covers: linear and logistic regression, shrinkage, lasso, principal components, tree-based methods, model assessment and selection, model ensembles, support vectors, and R for data mining. Department of Biostatistics, University at Buffalo, SUNY. Fall 2022, 2023, 2024.

3. **Introduction to Theoretical Statistics I (Master's Level; Credit 3.0; Class size: 6).** Provides the background in probability and distribution theory required for theoretical statistics. Topics covered: axioms of probability theory, independence, conditional probability, random variables, discrete and continuous probability distributions, functions of random variables, moment-generating functions, laws of large numbers, and central limit theorem. Department of Biostatistics, University at Buffalo, SUNY. Fall 2020.

4. **Introduction to Theoretical Statistics II (Master's Level; Credit: 3.0; Average class size: 4-6).** Introduces principles of statistical inference. Topics include classical methods of estimation, tests of significance, interval estimates, Neyman-Pearson's theory of testing hypotheses, maximum likelihood estimation, and Bayesian statistics. Department of Biostatistics, University at Buffalo, SUNY. Spring 2021, 2022.

At the University of Florida

1. **Introduction to Probability/Fundamentals of Probability (Masters' and Advanced Undergraduate Level; Credit: 3.0; Class size: 40)**. Introduces probability theory required for mathematical statistics. Topics covered: axioms of probability theory, independence, conditional probability, random variables, discrete and continuous probability distributions, moment-generating functions, functions of random variables, and multivariate distributions. Department of Statistics, University of Florida. Fall 2017.

2. **Introduction to Statistics I (Introductory Undergraduate Level; Credit 3.0; Average class size per section: 30-40**). Provides an introduction to statistics at an undergraduate level. Topics covered: basics of statistics, central tendency, dispersion, elementary large sample theory, elementary statistical inference – estimation and hypothesis testing. Taught as a teaching assistant with scheduled weekly lab and tutoring sessions in charge of three separate sections. Fall 2014, Spring 2015.

Workshop Teaching

1. **BERD Research-on-a-Napkin Consulting.** Quick (bio-)statistical consultation to researchers interested in submitting a funding application for selected pilot RFAs. June 2021, June 2022.

2. **Classification Methods for Data Mining.** CTSI Workshop: BERD Data Mining in Health Sciences. Clinical and Translational Science Institute, University at Buffalo, SUNY. April 2022.

3. **Statistics in the Era of Massive Data.** BERD Faculty Lecture. BERD Winter Institute for Biostatistics. University at Buffalo, SUNY. January 2022, 2023, 2024.

4. **Chakraborty, S.** Statistics for Complex, Large Scale Data. Invited Presentation given at Biostatistics New Graduate Students' Orientation. University at Buffalo SUNY. Buffalo, NY, USA. August 2022.

5. **Introduction to Bayesian Statistics.** BERD Winter Institute for Biostatistics 2021, 2022. University at Buffalo, SUNY. January 2021, 2022.

6. **An Introduction to Hidden Genome Modeling with R package hidgenclassifier.** Virtual Workshop given at Department of Biostatistics & Epidemiology, Memorial Sloan-Kettering Cancer Center, New York. November 2020.

SERVICE

Service to the Profession

Editorial Boards and Reviewing

2025 – Present **Associate Editor of *Sankhya Series A.*** *Sankhya: The Indian Journal of Statistics.*

2021 – Present **Correspondent of *Biometric Bulletin* by the International Biometric Society**, Eastern North American Region (ENAR) correspondent of the Biometric Bulletin publication.

2020 – Present **Peer Reviewer of Scholarly Journals** (numbers in parentheses display the number of separate articles reviewed for the journal, excluding revisions):

- Biometrics (2)
- Journal of the Royal Statistical Society (Series B) (4)
- Journal of the American Statistical Association (2)
- The American Statistician (1)
- Electronic Journal of Statistics (1)
- The R Journal (1)
- Statistics in Medicine (1)
- Journal of Multivariate Analysis (1)
- Bayesian Analysis (3)
- Journal of Graphical and Computational Statistics (3)
- Frontiers in Oncology (1)
- INQUIRY (1)
- Journal of the Franklin Institute (2)
- Mathematical Population Studies (1)
- Journal of Machine Learning Research (1)
- Cancer Reports (1)
- Journal of Data Science (1)

2022 **Ad hoc Peer Reviewer of Academic Grant Proposals**, Tufts CTSA BERD Small Grant Program.

2022, 2023 **Ad hoc Peer Review of Academic Grant Proposals**, US Department of Defense TBI panel.

2020 **Ad hoc Peer Review of Academic Grant Proposals**, National Science Foundation CAREER Grant.

Other Professional Services

2025 **Session Chair of International-Level Conference (IISA) Invited Session:** Bayesian and Empirical Methods for Prediction, Inference, and Signal Detection. June 15, 2025. East Union, University of Nebraska. Lincoln, Nebraska, USA.

2025 **Invited panelist in Panel Discussion: Navigating the Academic Job Market for (Bio)Statistics Faculty & Postdoc Positions.** Participated as an invited panelist in the virtual event organized by the American Statistical Association Student Chapters at the University at Buffalo and the University of North Carolina at Chapel Hill. April 1.

2024 **Joint Statistical Meeting Topic Contributed Session Organizer**, Joint Statistical Meetings 2024. Accepted Topic Contributed Session Title: Recent Advances in Inferential Statistical Methods in Genomics. August 3-8, Portland, OR, USA.

2024 **Attendee, ENAR Officers' Meeting**, Attended as the Biometric Bulletin Correspondent in ENAR RAB/RECOM Luncheon Meeting at IBS ENAR Spring Meeting 2024. March 11, Baltimore Marriott Waterfront, Baltimore, MD, USA

2024 **ENAR Invited Session Organizer**, ENAR 2024 Spring Meeting. Accepted Invited Session Title: Recent Advances in Statistical Approaches for Postmarket Medical Product Safety. March 10-13, Baltimore Marriott Waterfront, Baltimore, MD, USA.

2023 – Present **Chapter Secretary**, American Statistical Association, Buffalo Niagara Chapter, New York.

2023 **Attendee, ENAR Officers' Meeting**, Attended as the Biometric Bulletin Correspondent in ENAR RAB/RECOM Luncheon Meeting at IBS ENAR Spring Meeting 2023. March 20, JW Marriott Nashville, Nashville, TN, USA.

2023 **ENAR Invited Session Organizer**, ENAR 2023 Spring Meeting. Accepted Invited Session Title: Recent Advances in Inferential Statistical Methods in Genomics. March 19-22, JW Marriott Nashville, Nashville, TN, USA.

2022 **Attendee, ENAR Officers' Meeting**, Attended as the Biometric Bulletin Correspondent in ENAR RAB/RECOM Luncheon Meeting at Joint Statistical Meeting 2022. August 9, Washington DC, USA.

2022 **Member, Core Organizing Committee, and IT Committee**, UPSTAT 2022 Conference: Upstate NY Chapter of American Statistical Association. *As also noted under service to the University at Buffalo*. May 2-4, Jacobs School of Medicine, University at Buffalo SUNY, Buffalo, NY, USA.

2022 **Invited Conference Session Organizer**, Session Title: Recent Advances in Computational Bayesian Methods I & II, UP-STAT 2022 Conference, May 2-4, University at Buffalo, NY, USA.

Statistical Consultation Services

1. **Hollen Reischer,** PhD. Visiting Assistant Professor, Department of Psychology, College of Liberal Arts and Sciences. University at Buffalo, SUNY. November 2023 January 2024.

2. **Rubelisa Oliviera,** DDS, MS, PhD. Clinical Assistant Professor, Department of Periodontics and Endodontics. School of Dental Medicine. University at Buffalo, SUNY. December 2023 - Present.

3. **Megan Tracy,** MD. Clinical Assistant Professor, Department of Pediatrics. Jacobs School of Medicine & Biomedical Sciences. University at Buffalo, SUNY. December 2023.

4. **Jessica Reynolds,** PhD. Associate Professor, Department of Medicine. Jacobs School of Medicine & Biomedical Sciences. University at Buffalo, SUNY. December 2023.

5. **Janice Tona,** Clinical Associate Professor, Department of Rehabilitation Science. School of Public Health and Health Professions. University at Buffalo, SUNY. August 2023.

6. **Jennifer Abeles,** Clinical Assistant Professor, Department of Medicine, Jacobs School of Medicine and Biomedical Sciences, University at Buffalo SUNY. April 2023 – Present.

7. **Seth R. Glassman,** Assistant Clinical Professor of Medicine, Department of Medicine, Jacobs School of Medicine & Biomedical Sciences. University at Buffalo SUNY. April 2023 – Present.

8. **Christopher Heffner,** PhD, MS. Assistant Professor, Department of Communicative Disorders and Sciences, College of Arts and Sciences, University at Buffalo SUNY. April 2023.

9. **Mattie Rosi-Schumacher**, Resident. Department of Otolaryngology, Jacobs School of Medicine and Biomedical Sciences. University at Buffalo SUNY. March, 2023.

10. **Lana M Pasek**, EdM, MSN, RN, ANP, PhD(s). School of Nursing, University at Buffalo SUNY. February 2023.

11. **Sangita P. Patel**, MD, PhD. Assistant Professor. Department of Ophthalmology, Jacobs School of Medicine & Biomedical Sciences. University at Buffalo, SUNY. August 2022; February 2023 – Present.

12. **Samantha Auerbach**, MSN, ANP-C, WHNP-BC. Presidential Scholar. School of Nursing, University at Buffalo SUNY. November 2022 – Present.

13. **Panayotis Thanos**, PhD. Senior Research Scientist. Department of Pharmacology and Toxicology, Jacobs School of Medicine & Biomedical Sciences. University at Buffalo, SUNY. September 2022 – Present.

14. **Yotam Weiner**, MD, PhD. Fellow. Department of Medicine, University at Buffalo SUNY. October 2022 – January 2023.

15. **Manju Ceylony**, MD. Clinical Associate Professor, Department of Medicine, Jacobs School of Medicine & Biomedical Sciences. University at Buffalo SUNY. October 2022 – December 2022.

16. **Jordan D. Frey**, MD. Center for Cancer Care, Department of Head and Neck Surgery and Plastic and Reconstructive Surgery, ECMC, Buffalo. Septmember 2022 – November 2022.

17. **Filip Stefanovic**, PhD. Teaching Assistant Professor of Biomedical Engineering, Department of Biomedical Engineering, Jacobs School of Medicine & Biomedical Sciences, University at Buffalo, SUNY. August 2022.

18. **Alison Hendricks**, PhD. Assistant Professor, Department of Communicative Disorders and Sciences, College of Arts and Sciences, University at Buffalo, SUNY. July 2022 – September 2022.

19. **Chelsie Ambruster**, PhD. Assistant Professor, Department of Microbiology and Immunology, Jacobs School of Medicine & Biomedical Sciences, University at Buffalo SUNY. February 2021 – June 2021; December 2022 – Present.

20. **Tanmay Lele**, PhD. Unocal Professor, Biomedical Engineering and Chemical Engineering; Affiliated Faculty, Translational Medical Sciences. Department of Biomedical Engineering, Texas A&M University. July 2020 - August 2021.

21. **Douglas J. Cassidy**, MD. Resident. Massachusetts General Hospital. October 2019 – June 2020.

22. **Sasha Vaziri**, MD. Neurological Surgery, University of Florida. December 2017 – September 2018.

23. **Nilovna Chatterjee**, Graduate student, Department of Soil Sciences, University of Florida. January 2017 – July 2017.

University at Buffalo, SUNY Services

Service to the University

2022 — **Member, Core Organizing Committee, and IT Committee**, UPSTAT 2022 Conference: Upstate NY Chapter of American Statistical Association, May 2-4, Jacobs School of Medicine, University at Buffalo SUNY, Buffalo, NY, USA. *As also noted under service to the profession.*

2022 – 2024 — **Judge, BERD High School Poster Contest**, Department of Biostatistics, School of Public Health and Health Professions (SPHHP), University at Buffalo, SUNY.

2022 – 2024 — **Statistical Consultation**: Statistical consultation provided to 19 University at Buffalo PIs as a part of BERD services *(See Statistical Consultation Services)*.

2021 - 2022 — **BERD Research-on-a-Napkin Consulting** Quick (bio-)statistical consultation to researchers interested in submitting a funding application for selected pilot RFAs. As also noted under Workshop teaching.

Service to the School of Public Health and Health Professions (SPHHP)

2021 – 2024 — **Member of the SPHHP Faculty Council**, School of Public Health and Health Professions, University at Buffalo, SUNY. Buffalo, NY, USA.

2021 – 2024 — **Reviewer of SPHHP By-laws**, Reviewed SPHHP By-laws and reviewed specific proposed modifications to the By-laws as part of services provided by the SPHHP Faculty Council.

May 2022	**Member of the Organizing Committee**, SPHHP Faculty Council hosted event 'New Frontiers: LMS, Teaching Techniques and More' delivered by Prof. Jessica Kruger.
November 2022	**Member of the Organizing Committee**, SPHHP Faculty Council 2022 hosted event 'Faculty Promotion Workshop' delivered by Prof. Jo Freudenheim.
March 2023	**Member of the Organizing Committee**, SPHHP Faculty Council hosted event 'Resources for Research'
March 2023	**Contact for SPHHP Faculty Council**, Served as the SPHHP Faculty Council contact person for the presentation 'UB's Center for Computational Research' at the SPHHP Faculty Council-hosted event 'Resources for Research'.
November 2023	**Member of the Organizing Committee**, SPHHP Faculty Council2023 hosted event 'Resources for Teaching: Navigating the use of AI in the Classroom'.
March 2024	**Member of the Organizing Committee**, SPHHP Faculty Council hosted event 'Ice Skating at the North Buffalo Ice Rink!'.
April 2024	**Member of the Organizing Committee**, Faculty Council-hosted event 'Students as Research Subjects: All You Need to Know'.

Service to the Department of Biostatistics

2024	**Member, Master's-level Biostatistician Search Committee**, Served as a regular committee member. Department of Biostatistics SPHHP and CTSI BERD, University at Buffalo, SUNY.
2022 – 2023	**Organizer of Departmental Seminar Series**, Department of Biostatistics, SPHHP, University at Buffalo, SUNY.
2022 – 2024	**Judge, BERD High School Poster Contest**, Department of Biostatistics, School of Public Health and Health Professions (SPHHP), University at Buffalo, SUNY. *As also noted under service to the university.*
2022 – 2024	**Faculty reviewer, Biostatistics MA and PhD admission committee**, Reviewer of graduate student applications. Department of Biostatistics, University at Buffalo, SUNY. Buffalo, NY, USA.

2022 – 2023 **Member, Biostatistics Assistant/Associate Professor Search Committee**, Served as a regular committee member. Department of Biostatistics, University at Buffalo, SUNY. Buffalo, NY, USA.

2021 – 2023 **Member, Biostatistics Chair Search Committee**, Served as a regular committee member. Department of Biostatistics, University at Buffalo, SUNY. Buffalo, NY, USA.

2021 – 2024 **Representative of Biostatistics Department at SPHHP Faculty Council**, School of Public Health and Health Professions, University at Buffalo, SUNY. Buffalo, NY, USA.

2020 – Present **Attendee in Biostatistics Faculty Meetings**, Attended as a faculty member in Biostatistics Faculty Meetings.

Prior Professional Service

2017 – 2018 **Statistics Student Seminar Series Organizer**, *Department of Statistics, University of Florida*, Gainesville, FL, USA.