Curriculum Vitae

Arhit Chakrabarti

Ph.D. Student | Department of Statistics, Texas A&M University | arhit.chakrabarti@tamu.edu | Website

Education

Texas A&M University, College Station, Texas, **Ph.D. in Statistics** 2021 – Current

- **Advisors:** Dr. Bani K. Mallick and Dr. Yang Ni
- **Research Interest:** Bayesian Nonparametrics, Machine Learning, Spatial Transcriptomics, Unsupervised learning.
- GPA: 4.0/4.0

University of Calcutta, Kolkata, India, **M.Sc. in Statistics** 2015 – 2017

- **Project:** Statistical Inference with Standard Adaptive Designs and a Proposed Alternative
- GPA: 92.2/100 (First in First Class)

Presidency University, Kolkata, India, **B.Sc. in Statistics** 2012 – 2015

- **Minors:** Mathematics and Economics
- GPA: 9.5/10 (First in First Class)

Experience

Graduate Teaching and Research Assistant, Texas A&M University 2021 – Current

- Working as an RA for variety of projects mainly arising from the field of Bioinformatics.
- Worked as TA for STAT 600 (PhD level Statistical Computation course).
- Worked as TA for STAT 303 (Undergraduate Introductory Statistics course).
- Lecturer for STAT 201: Elementary Statistical Inference.

Senior Biostatistician, Novartis Healthcare Pvt. Ltd. – Early Development Biostatistics 2019 – 2021

- Worked extensively on developing Bayesian Hierarchical Regression models for dose-finding studies and supported dose escalation decisions, development of the study design, preparation of statistical analysis plan and performing exploratory analyses.
- Worked on the development of exploratory visualizations to better understand the data and have successfully provided answers to the Health Authority questions and requests.

Biostatistician, Novartis Healthcare Pvt. Ltd. – Global Medical Affairs 2017 – 2019

- Supported the statistical activities of clinical trials and adhoc exploratory analysis.
- Supported the statistical activities for publications in manuscripts and posters apart from preparation of statistical analysis plan and development of study designs.

Publications

LILRB4 regulates circadian disruption-induced mammary tumorigenesis via non-canonical WNT signaling pathway 2025

Ogunlusi, O., Sarkar, M., Carter, K., ***Chakrabarti, A.***, Boland, D. J., Nguyen, T., et. al

Oncogene, 1-14, 2025.

Nested Atoms Model with Application to Clustering Population-Scale Single-Cell Data 2025

Chakrabarti, A., Ni,Y., Jiang, Y. Mallick, B

Submitted.

Global-Local Dirichlet Processes for Clustering Grouped Data in the Presence of Group-Specific Idiosyncratic Variables 2025

Chakrabarti, A., Ni,Y., Pati, D., Mallick, B

Just accepted. Forty-Second International Conference on Machine Learning (ICML), 2025
[2025 SETCASA Poster Competition Golden Award]

Global-Local Dirichlet Processes for Identifying Pan-Cancer Subpopulations Using Both Shared and Cancer-Specific Data 2025

Chakrabarti, A., Ni,Y., Pati, D., Mallick, B

The Annals of Applied Statistics, **19**(3), 2254-2278, September 2025

Joint Bayesian estimation of cell dependence and gene associations in spatially resolved transcriptomic data 2024

Chakrabarti, A., Ni,Y., Mallick, B

Scientific Reports, **14**, 9516 (2024)
[Poster award, 6th Annual Symposium Cancer Research: Basic Science to Bioinformatics]

Graphical Dirichlet Process for Clustering Non-Exchangeable Grouped Data 2024

Chakrabarti, A., Ni,Y., Morris, E.R.A., Salinas, M.L., Chapkin, R.S., Mallick, B

Journal of Machine Learning Research, **24**(323):1-56, 2024 **[SBSS Student Paper Award 2024, American Statistical Association]**

Initiation of sacubitril/valsartan shortly after hospitalisation for acutely decompensated heart failure in patients with newly diagnosed (de novo) heart failure: a subgroup analysis of the TRANSITION study 2020

Senni, M., Wachter, R., Witte, K. K., Straburzynska-Migaj, E., Belohlavek, J., Fonseca, C., Mueller, C., Lonn, E., ***Chakrabarti, A.***, Bao, W., Noe, A., Schwende, H., Butylin, D., Pascual-Figal, D., and on behalf of the TRANSITION Investigators

European Journal of Heart Failure, vol. 22, no. 2, pp. 303-312, 2020.

Additional Academic Projects

Analysis of "Learn-As-You Go" (LAGO) study and extension for multi-stages and mixed intervention: Application to the ESSENCE study 2018 – 2019

- Worked as a Research Assistant, jointly under the collaboration of Department of Statistics, University of Calcutta, Department of Biostatistics, Harvard T.H. Chan School of Public Health, Department of Mathematics and Statistics, Boston University, Department of Statistics and Data Science, Yale University, Department of Statistics and Operations Research, Tel Aviv University.
- This was a large scale public health intervention research project, aimed to optimize interventions to be rolled out to participants to improve learning outcomes.

Functional Data Analysis for Gait Data 2017 – 2018

- Worked as a Research Assistant jointly with Department of Physiotherapy, University of Stellenbosch, Capetown and Department of Statistics, University of Calcutta.
- The project aimed to understand the effect of ITBS on gait of runners. The goal was to find out clinically relevant differences in the gait of runners affected by ITBS compared to the gait of unaffected runners.

e-Pathshala online lectures 2016 – 2017

- Presented lectures on Principal Component Analysis, Factor Analysis, Bayesian Analysis, and Multivariate Analysis as a part of University of Calcutta and Government of India's initiative to impart higher education for everyone.

Honors And Awards

Texas A & M University
2021 – Current

- Emanuel Parzen Graduate Research Fellowship Award for demonstrating exemplary research, above and beyond what is expected for graduation (2025).
- IMS Hannan Graduate Student Travel Award for presenting *Global-Local Dirichlet Processes for Clustering Grouped Data in the Presence of Group-Specific Idiosyncratic Variables* at the 14th International Conference on Bayesian Nonparametrics, UCLA, USA, 2025.
- BNP-ISBA Travel award for presenting *Global-Local Dirichlet Processes for Clustering Grouped Data in the Presence of Group-Specific Idiosyncratic Variables* at the 14th International Conference on Bayesian Nonparametrics, UCLA, USA, 2025.
- ISBA Travel award for presenting *Graphical Dirichlet Process for Clustering Non-Exchangeable Grouped Data* at the ISBA World Meeting, Venice, Italy, 2024.
- ISBA Travel award for presenting *Graphical Dirichlet Process for Clustering Non-Exchangeable Grouped Data* at Bayesian Nonparametrics Networking Workshop, Melbourne, Australia, 2023.
- Invited member of all-discipline honor society Phi-Kappa-Phi (2023).
- William S. Connor award for the most outstanding among those students passing the preliminary examinations during the current year (2022).

University of Calcutta
2015 – 2017

- Gold Medal in M.Sc in Statistics for being the University Topper.
- R.C Bose Book Prize for securing First position in semester I and semester II of M. Sc course (awarded by the Calcutta Statistical Association, 2016).
- DST INSPIRE Scholarship, awarded to top undergraduate students for pursuing graduate courses in Natural and Basic Sciences.

Presidency University
2012 – 2015

- Gold Medal in B.Sc Honours in Statistics for being the University Topper.
- Prof. Anil Kumar Bhattacharya Memorial Prize for being First in faculty of Science.
- Dr. Syama Prasad Mookherjee Gold Medal for Scholastic Record UG Major.
- DST INSPIRE Scholarship, awarded to top high school students for pursuing undergraduate courses in Natural and Basic Sciences.