# Anirban Chatterjee

#### Curriculum Vitae

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anirbanc96.github.io/main/

#### Education

2020-present Ph.D., Department of Statistics and Data Science, The Wharton School, University of

Pennsylvania, Philadelphia, United States.

Advisor: Dr. Bhaswar B. Bhattacharya

GPA: 4.00

Expected Graduation: May 2025

2018–2020: Master of Statistics, Indian Statistical Institute, Kolkata, India.

Total Percentage Score: 91.6%

2015–2018: Bachelor of Statistics, Indian Statistical Institute, Kolkata, India.

Total Percentage Score: 85.03%

#### Publications

#### Journal Articles

- 2023 Bhaswar B Bhattacharya, **Anirban Chatterjee**, and Svante Janson. Fluctuations of subgraph counts in graphon based random graphs. *Combinatorics, Probability and Computing*, volume 32, pages 428–464. Cambridge University Press, 2023.
- 2022 **Anirban Chatterjee** and Rajat Subhra Hazra. Spectral properties for the Laplacian of a generalized Wigner matrix. *Random Matrices: Theory and Applications*, volume 11, page 2250026. World Scientific, 2022.

#### Preprints

- 2023 **Anirban Chatterjee** and Bhaswar B Bhattacharya. Boosting the Power of Kernel Two-Sample Tests. *arXiv e-prints*, 2023.
- 2022 **Anirban Chatterjee**, Sagnik Nandy, and Ritwik Sadhu. Clustering Network Vertices in Sparse Contextual Multilayer Networks. *arXiv e-prints*, 2022.

# Ongoing Projects

- 2023+ Higher Order Graphon Theory: Fluctuations and Inference.
  - Joint work with: Bhaswar B. Bhattacharya and Soham Dan
- 2023+ **Differentially Private Estimation in Ising Models**.

Joint work with: Abhinav Chakraborty and Abhinandan Dalal

2023+ A Nearest Neighbour Approach To Conditional Two Sample Test.

Joint work with: Bhaswar B. Bhattacharya, Ziang Niu

2023+ Fluctuations of the Largest Eigenvalue in Graphon Based Random Graphs.

Joint work with: Jiaoyang Huang

2023+ Asymptotics of Pattern Density in Random Permutations.

Joint work with: Bhaswar B. Bhattacharya, Sayan Das, Sumit Mukherjee

# **Industry Experience**

2017 Form and Performance Analytics for Large Scale Online Assessments.

Position: Project team member, TCS ion

#### Presentation

2023 Joint Statistical Meeting, Toronto, Canada.

Topic: Clustering Network Vertices in Sparse Contextual Multilayer Networks.

2023 **ASU Seminar**, Indian Statistical Institute, Kolkata, India.

Topic: Higher Order Graphon Theory: Fluctuations and Inference.

2022 IMS Annual Meeting, London, UK.

Topic: Fluctuations of Subgraph counts in Graphon based Random Graphs.

2020 P.C. Mahalanobis Gold Medal Presentation, Indian Statistical Institute, Kolkata, India.

Topic: Graphon Estimation.

# Programming Languages

R, Python, C

# Teaching and Mentoring

2022 *Undergraduate Research in Probability and Statistics*, University of Pennsylvania, Philadelphia, USA.

Position: Graduate Mentor

Topic: Inhomogeneous W-random Graphs

2022 **Teaching Assistant**, The Wharton School, University of Pennsylvania, Philadelphia, USA.

STAT 432 - Mathematical Statistics STAT 961 - Statistical Methodology

# Fellowships & Awards

2016 - 2020 **Dean's List for Toppers** at Indian Statistical Institute, Kolkata