Anagh Chattopadhyay Curriculum Vitae

Last updated: November 11, 2026

Contact details

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Address: Department of Biostatistics
615 N. Wolfe Street
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Education

Ph.D. in Biostatistics, **Johns Hopkins University** GPA 4.00/4.00 2023–05/28 (exp.)

- Bloomberg School of Public Health; **Advisor:** Nilanjan Chatterjee

Master of Statistics (M.Stat.), **Indian Statistical Institute**, Kolkata 2021–2023

- Graduated with Distinction

Bachelor of Statistics (Hons.), **Indian Statistical Institute**, Kolkata 2018–2021

Research

My research focuses on statistical genetics and causal inference, with an emphasis on developing novel Mendelian randomization methods that improve instrument selection and validity. I am particularly interested in applications to maternal and perinatal health outcomes, breast cancer risk prediction, and complex trait analysis across diverse populations. I also work on interpretable AI/ML methods.

Preprints

2. **Chattopadhyay, A.** & Chatterjee, N. (2026). Improving Mendelian Randomization Analysis by Instrument Borrowing from Auxiliary Outcome Traits. arXiv:2607.16086

Peer-reviewed publications

1. **Chattopadhyay, A.** & Deb, S. (2024). A Spatio-Temporal Model for Binary Data and Its Application in Analyzing the Direction of COVID-19 Spread. *AStA Advances in Statistical Analysis*, 108(4), 823–851. Journal link

Manuscripts in preparation

3. **Chattopadhyay, A.** & Chatterjee, N. Mediation without the Mediator: Mendelian Randomization through a Latent Pathway.
4. **Chattopadhyay, A.**, Mhatre, S., Dikshit, R., Choudhary, S., Pal Choudhury, P. & Chatterjee, N. A Breast Cancer Risk Prediction Model for Indian Women.
5. **Chattopadhyay, A.**, Baqui, A. H., Khanam, R., Islam, M. S., Akhtar, B., Zhao, N. & Chatterjee, N. Portability of Blood-Pressure Polygenic Scores and Mendelian Randomization of Perinatal Outcomes across South Asian and African Pregnancy Cohorts.

Talks & Posters

Invited talks

- **BEST Seminar Series**, Johns Hopkins University, Baltimore Nov 2026
- **Human Genetics Unit**, Indian Statistical Institute, Kolkata Jun 2026

Contributed talk

- **IGES Annual Meeting**, Estérel Resort, Quebec Oct 2026
  Roger Williams Award finalist

Posters

- **Genetics Research Day**, Johns Hopkins University, Baltimore — Nov 2026
- **ASHG Annual Meeting**, Boston, MA — Oct 2025
- **Bernoulli–IMS World Congress in Probability and Statistics**, Bochum — Aug 2024
- **17th Applied Statistics Conference**, Ljubljana, Slovenia (Poster Award) — Sep 2021

Honors & Awards

- **Roger Williams Award** finalist, International Genetic Epidemiology Society — 2026
- **ACIC Travel Award** ($700), Society for Causal Inference — 2026
- **Bruce Weir Scholarship**, Summer Institute in Statistical Genetics (SISG) — 2026
- **KVPY Fellowship** (Kishore Vaigyanik Protsahan Yojana), Government of India
- **NTSE Scholarship** (National Talent Search Examination), Government of India

Research Positions

Graduate Research Assistant, **Johns Hopkins University** — 2023–present
- **Advisor:** Nilanjan Chatterjee

Research Intern, **NYU Grossman School of Medicine** — Apr 2022 – Aug 2023
- **Advisor:** Aravinda Chakravarti

Research Intern, **University of Minnesota** — Mar 2022 – May 2023
- In collaboration with IIM Bangalore & IIM Indore
- **Advisors:** Snigdhansu Chatterjee, Sayantan Banerjee & Soudeep Deb

Reading Project, **Columbia University** — Mar 2022 – Nov 2022
- **Advisor:** Bodhisattva Sen

Research Intern, **Duke-NUS Medical School**, Singapore — Dec 2021 – Oct 2022
- **Advisor:** Bibhas Chakraborty

Research Intern, **IIM Bangalore** — Jan 2021 – Aug 2022
- **Advisor:** Soudeep Deb

Teaching

As teaching assistant, **Johns Hopkins Bloomberg School of Public Health**
- Probability Theory I & II (also guest lecturer) — 2026–2027
- Causal Inference I & II (also guest lecturer on mediation analysis) — 2025–2027
- Probability Theory I–IV — 2024–2025
- Statistical Methods in Public Health

Service

- Abstract reviewer, **ASHG Annual Meeting** — 2026
- Peer reviewer, **American Causal Inference Conference** — 2026
- Member, ASHG, ASA & Society for Causal Inference — 2025–present
- Volunteer mathematics teacher, **CRY (Child Rights and You)**, Kolkata

Skills

Programming: R, Python, C++ (intermediate), Git, Markdown

Languages: English (fluent), Bengali (native), Hindi (proficient), French, Spanish (beginner)

References

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Dr. Parichoy Pal Choudhury
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American Cancer Society
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