Anamitra Chaudhuri

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EDUCATION

Ph.D. in Statistics, University of Illinois at Urbana Champaign.
August 2018 - Present (expected to be completed in July 2023).

- Area of Thesis Research: Sequential Analysis, Online Decision Making
- Advisor: Georgios Fellouris
- CGPA: 3.96

Master of Statistics (M. Stat.), Indian Statistical Institute, Kolkata.
July 2016 - June 2018.

- Specialization: Theoretical Statistics
- Passed in First Division with Distinction

Bachelor of Statistics (B. Stat.)(Hons.), Indian Statistical Institute, Kolkata.
July 2013 - May 2016.

- Passed in First Division with Distinction

RESEARCH
INTERESTS

1. Sequential analysis, Sequential multiple testing, Quickest change detection, Streaming data analysis.

2. Nonparametric signal denoising, Cross validation.

3. Stochastic modeling, Statistical inference for stochastic systems with long range dependence.

PUBLICATIONS
AND PREPRINTS

1. Chaudhuri, A. and Fellouris, G. (2022). Joint sequential detection and isolation for dependent data streams. *arXiv preprint arXiv:2207.00120*. (Submitted to *The Annals of Statistics*)

2. Chaudhuri, A. and Chatterjee, S. (2022). A Cross Validation framework for Signal Denoising with Applications to Trend Filtering, Dyadic CART and Beyond. *arXiv preprint arXiv:2201.02654*. (Major revision at *The Annals of Statistics*)

3. Chaudhuri, A., Fellouris, G. and Tajer, A. (2021). Sequential Change Detection of a Correlation Structure under a Sampling Constraint. In 2021 IEEE International Symposium on Information Theory (ISIT) 605-610.

4. Chaudhuri, A. and Fellouris, G. (2020). Sequential Detection and Isolation of a Correlated Pair. In 2020 IEEE International Symposium on Information Theory (ISIT) 1141-1146.

1. Computationally Efficient Sequential Change Detection Policy under Sampling Constraint. (To be submitted to *IEEE Transactions on Information Theory*)
   - with Georgios Fellouris (UIUC) and Ali Tajer (Rensselaer Polytechnic Institute (RPI))

2. Online Detection of Malicious Social Media Activities Run by Influence Operations: a Twitter Data Analysis. (Manuscript in preparation, 2022)
   - with Georgios Fellouris (UIUC), Ali Tajer (RPI) and Jacob N. Shapiro (Princeton University)

3. Sequential Decision Making for Fractional Gaussian Processes. (Manuscript in preparation, 2022)
   - with Alexandra Chronopoulou (UIUC) and Georgios Fellouris (UIUC).

- (Talk) 2022 INFORMS Annual Meetings, October 16-19, Indianapolis, IN, USA.
- (Talk) 2021 IEEE International Symposium on Information Theory (ISIT), July 12-20, Melbourne, Victoria, Australia.
- (Talk) 2020 INFORMS Annual Meetings, November 7-13.
- (Talk) 2020 IEEE International Symposium on Information Theory (ISIT), June 21-26, Los Angeles, CA, USA.
- (Poster) 2020 Joint Statistical Meetings (JSM), August 1-6, Philadelphia, PA, USA.

- (Poster) 2022 NSF ATD and AMPS Workshop, May 23-25, George Mason University, Fairfax, VA, USA.
- (Talk and Poster) 2022 Bohrer Workshop, April 23, University of Illinois at Urbana Champaign, Champaign, IL, USA.
- (Poster) 2020 NSF ATD Workshop, November 9-10.
- (Poster) 2019 NSF ATD and AMPS Workshop, October 21-23, The George Washington University, Washington, D.C., USA.

1. Instructor, University of Illinois at Urbana Champaign
   - Statistics (STAT 100), Summer 2019.

2. Graduate Teaching Assistant, University of Illinois at Urbana Champaign
   - Methods of Applied Statistics (STAT 420), Fall 2018, Spring 2019.
     - Instructor: Alexey G Stepanov
   - Statistical Computing (STAT 428), Fall 2019.
     - Instructor: Uma Ravat
   - Large Sample Theory (STAT 575), Spring 2020.
     - Instructor: Sabyasachi Chatterjee
   - Non-parametric Statistics (STAT 430), Fall 2020.
     - Instructor: Jingbo Liu
   - Stochastic Processes (STAT 433), Fall 2021, Fall 2022.
     - Instructor: Sabyasachi Chatterjee

Honors and Awards

- NSF Travel award (ATD and AMPS Workshops in 2019 and 2022).

- Champion in the Capital One Case Study Competition 2016 at ISI, Kolkata.

- Regional Mathematical Olympiad (RMO) 2011 merit certificate (for being among top 75 in the state).

- INSPIRE Scholarship (2013-2018) from Department of Science and Technology, Government of India.

- Ranked 8th among around 300 thousand students from the state of West Bengal in Higher Secondary Examination, 2013.

Technical Expertise

C++, R, LaTeX.

Languages Known

English, Bengali (native), Hindi.

Services

- 2021 Joint Statistical Meetings (JSM), August 8-12.
  - Session chair: Trend Filtering and Related Regression Methods.

- East-Central Illinois Bengali Association (ECIBA).
  - Cultural committee member: organized and actively participated in various socio-cultural activities.

Extracurricular activity

- Soccer: participated in intramural activities (indoor and outdoor) at UIUC; represented ISI, Kolkata in various inter-college soccer tournaments, became champion in Integration 2018 (the annual techno-cultural-sports fest of ISI, Kolkata).

- Enthusiastic about sketching, painting, cartooning and digital art.