# Shubhadeep Chakraborty

Mailing Address

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2010 - 2013

#### EDUCATION AND EMPLOYMENT

Postdoctoral Scholar, University of Washington, Seattle, WA, USA 2020 -

Advisor: Dr. Ali Shojaie

Ph.D in Statistics, Texas A&M University, College Station, TX, USA 2015 - 2020

Advisor: Dr. Xianyang Zhang

GPA:4.0

M.Stat, Indian Statistical Institute, Kolkata, India 2013 - 2015

Specialization: Biostatistics & Data Analysis

 $Aggregate\ Marks: 74.95\ \%$ 

B.Sc in Statistics, R.K.MISSION RESIDENTIAL COLLEGE,

 ${\tt NARENDRAPUR} \ ({\tt affiliated} \ {\tt to} \ {\tt University} \ {\tt of} \ {\tt Calcutta}, \ {\tt India})$ 

Aggregate Marks: 89.375 %

#### RESEARCH INTERESTS

• Nonparametric Statistics • High-Dimensional Statistics • Change-Point Detection • Causal Inference

#### DISTINGUISHED ACADEMIC AWARDS

- Humboldt Research Fellowship for Postdoctoral Researchers from the ALEXANDER VON HUMBOLDT FOUNDATION, Germany, to carry out long-term research at a research institution in Germany. (Declined)
- Distinguished Graduate Student Award for Excellence in Teaching from the ASSOCIATION OF FORMER STUDENTS (AFS), Texas A&M University, College Station, TX, USA, in recognition of outstanding academic record and contributions in teaching.
- Sabyasachi Roy Memorial Gold Medal Award from Indian Statistical 2015 Institute, Kolkata, India, for the best project work of the M.Stat program (2013-2015).

### OTHER ACADEMIC AWARDS

- Dr. Joseph Newton Graduate Student Service Award from College of Science, Texas A&M University, College Station, TX, USA, in recognition of distinguished service to Texas A&M University and exemplary academic performance.
- Anant M. Kshirsagar Endowed Fellowship in Statistics from the Department of Statistics, Texas A&M University at the Joint Statistical Meetings (JSM) at Baltimore, MD, USA, in recognition of outstanding academic performance.
- Prof. Anil Bhattacharya Memorial Best Student of Statistics Award from R.K.Mission Residential College, Narendrapur, India.

## STUDENT PRESENTATION AWARDS

2019 • R. L. Anderson Student Poster Award from Southern Regional Council on STATISTICS (SRCOS) at SRCOS Summer Research Conference Student Poster Competition, Carrolton, KY, USA. • Best Presentation Award at the 2019 Annual Meeting of the Statistical 2019 Society of Canada (SSC) at University of Calgary, Calgary, AB, Canada. ullet  ${f 3^{rd}}$   ${f Prize}$  in the Southeastern Texas Chapter of the American Statistical 2019 Association (SETCASA) Poster Competition, College Station, TX, USA. • R. L. Anderson Student Poster Award from Southern Regional Council on 2018 STATISTICS (SRCOS) at SRCOS Summer Research Conference Student Poster Competition, Virginia Beach, VA, USA. • Gold Prize in Southeastern Texas Chapter of the American Statistical 2017 ASSOCIATION (SETCASA) Poster Competition, College Station, TX, USA. TRAVEL AWARDS • Boyd Harshbarger Student Travel Award from Southern Regional Council 2019 ON STATISTICS (SRCOS) for attending the SRCOS Summer Research Conference at Carrolton, KY, USA. • Boyd Harshbarger Student Travel Award from Southern Regional Council 2018 ON STATISTICS (SRCOS) for attending the SRCOS Summer Research Conference at Virginia Beach, VA, USA. 2018 • George Bush Presidential Library Foundation & OGAPS Travel Grant from Texas A&M University, USA, for attending the  $4^{th}$  Conference of the International Society for Nonparametric Statistics (ISNPS) at Salerno, Italy. SCHOLARSHIPS, FELLOWSHIPS & OTHER ACHIEVEMENTS • James Goodlett Fellowship from Texas A&M University, USA. 2015-16 • OGAPS Deans Doctoral Fellowship from Texas A&M University, USA. 2015-16 • Debesh-Kamal Scholarship from RAMAKRISHNA MISSION INSTITUTE OF CULTURE, 2015 Kolkata, India (awarded to deserving candidates for the purpose of higher education/ research abroad). • Obtained All India Rank 2 in the Joint Admission Test (JAM) conducted by the 2013 Indian Institute of Technology (IIT) for the Masters program in Statistics. • INSPIRE Scholarship from the MINISTRY OF SCIENCE AND TECHNOLOGY, 2010 GOVERNMENT OF INDIA, for being among the top 1% students of the nation in the  $12^{th}$  standard exam). • Ranked  $13^{th}$  in the Higher Secondary ( $12^{th}$  standard) examination among nearly 2015-16

## PUBLICATIONS (PUBLISHED/ACCEPTED/SUBMITTED)

5,00,000 candidates in the state of West Bengal, India.

- Chakraborty, S., and Zhang, X. (2020). "A New Framework for Distance and Kernel-based Metrics in High Dimensions". Under review at Annals of Statistics. (arXiv)
- Chakraborty, S., and Zhang, X. (2019). "Distance Metrics for Measuring Joint Dependence with Application to Causal Inference", Journal of the American Statistical Association, Theory and Methods, 114 (528) 1638-1650. (link).

# PUBLICATIONS (IN PREPARATION)

- Chakraborty, S., and Zhang, X., "A Nonparametric Methodology for Multiple Change-Point Detection for High-Dimensional Data", in preparation.
- Chakraborty, S., Roy, A. and Zhang, X., "Fast Computational Algorithms for Large-scale Independence testing", in preparation.

## INVITED PRESENTATIONS

• Invited Talk at the Department of Biostatistics, University of Washington at Seattle, WA, USA.	Feb, 2020
• Invited Talk, at the Department of Statistical Sciences, University of Padova, Padova, Italy.	Sep, 2019
• Invited Poster Presentation, at the 4 <sup>th</sup> Workshop On Goodness-of-fit, Change-Point and related problems (GOFCP) at University of Trento, Trento, Italy.	Sep, 2019
• Invited Talk, at the Joint Statistical Meetings (JSM) at Denver, CO, USA.	Aug, 2019
• Invited Talk, at the 4 <sup>th</sup> Conference of the International Society for Nonparametric Statistics (ISNPS) at Salerno, Italy.	June, 2018

## UPCOMING INVITED PRESENTATIONS

• Invited Talk at the 13th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2020) at London, UK.	Dec, 2020
• Invited Talk at the 24th International Conference on Computational Statistics (COMPSTAT 2021) at Bologna, Italy.	Aug, 2021

# OTHER PRESENTATIONS (SELECTED)

• Student Poster Competition, at the Southern Regional Council on Statistics (SRCOS) Summer Research Conference at Carrolton, KY, USA.	June, 2019
• Student Paper Award Talk, at the 2019 Annual Meeting of the Statistical Society of Canada (SSC) at University of Calgary, Calgary, AB, Canada.	May, 2019
• Student Paper Award Talk, at the 7 <sup>th</sup> Annual Canadian Statistics Student Conference (CSSC) at University of Calgary, Calgary, AB, Canada.	May, 2019
• Student Poster Competition of the Southeastern Texas Chapter of the American Statistical Association (SETCASA) at Texas A&M University, College Station, TX, USA.	April, 2019
• Student Poster Competition, at the Southern Regional Council on Statistics (SRCOS) Summer Research Conference at Virginia Beach, VA, USA.	June, 2018
• Student Poster Competition, at the 2017 conference of the International Indian Statistical Association (IISA) at Hyderabad, India.	Dec, 2017
• Contributed Talk, at the Joint Statistical Meetings (JSM) at Baltimore, MD, USA.	Aug, 2017
• Student Poster Competition of the Southeastern Texas Chapter of the American Statistical Association (SETCASA) at Texas A&M University,	April, 2017

College Station, TX, USA.

## TEACHING EXPERIENCE

#### • Graduate level

- Metric Spaces, Linear Algebra and Regression Analysis in BOOTCAMP
  2019 (offered for the incoming PhD students of Fall 2019), Department of Statistics, Texas A&M University.
- Metric Spaces, Linear Algebra and Regression Analysis in BOOTCAMP
  2018 (offered for the incoming PhD students of Fall 2018), Department of Statistics, Texas A&M University.

### • Undergraduate level

- STAT 211 (Principles of Statistics I), Department of Statistics, Texas A&M
  Fall 2019
  A&M University. 95 students enrolled with class evaluation of 4.5/5.
- STAT 303 (Statistical Methods), Department of Statistics, Texas A&M Spring 2018 University. 97 students enrolled with class evaluation of 3.7/5.
- STAT 211 (Principles of Statistics I), Department of Statistics, Texas A&M
  Fall 2017
  A&M University. 58 students enrolled with class evaluation of 4.0/5.
- STAT 303 (Statistical Methods), Department of Statistics, Texas A&M Summer 2017 University. 45 students enrolled with class evaluation of 4.1/5.

#### PROFESSIONAL ACTIVITIES

• Reviewer for Scandinavian Journal of Statistics, Journal of Nonparametric Statistics, Journal of Statistical Computation and Simulation, Journal of Multivariate Analysis, Open Statistics, The Annals of Statistics, Statistics in Medicine, Electronic Journal of Statistics, The Canadian Journal of Statistics, Journal of the Royal Statistical Society (Series B).

#### • Organized

- an invited paper session on "Recent Developments in High-Dimensional 2020 Statistics" at the 24th International Conference on Computational Statistics (COMPSTAT 2021) at Bologna, Italy.
- an invited paper session (upon invitation) on "Recent Advancements in High-Dimensional Statistics" at the 13th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2020) at London, UK.
- an invited paper session on "Recent Advancements in Distance and Kernel Based Metrics and Related Learning Methods" at the JOINT STATISTICAL MEETINGS (JSM) at Denver, CO, USA.
- an invited paper session (upon invitation) on "Recent Developments in Dependence Metrics and Their Applications" at the 4<sup>th</sup> Conference of the International Society for Nonparametric Statistics (ISNPS 2018) at Salerno, Italy.
- 'Statcafe', weekly departmental student seminars at the Department of Statistics, Texas A&M University, USA.
- Served as the **Session Chair** of an invited paper session on "Recent Developments in Dependence Metrics and Their Applications" at the 4<sup>th</sup> Conference of the International Society for Nonparametric Statistics (ISNPS) at Salerno, Italy.

# POSITIONS OF RESPONSIBILITY HELD

• President of the Statistics Graduate Student Association (SGSA), Department of Statistics, Texas A&M University, USA.	2019-20
• Founding President of Texas A&M University ASA Student Chapter, USA.	2019
• Vice President of the Statistics Graduate Student Association (SGSA), Department of Statistics, Texas A&M University, USA.	2018-19
• Secretary and Social Chair of the Statistics Graduate Student Association (SGSA), Department of Statistics, Texas A&M University, USA.	2017-18
• Delegate of the Department of Statistics at the Graduate and Professional Student Council (GPSC), Texas A&M University, USA.	2016-17
• <i>Member</i> of the Quality of Life Committee (an Internal Standing Committee) at the Graduate and Professional Student Council (GPSC), Texas A&M University, USA.	2016-17

# TECHNICAL SKILLS

 $\bullet$  Statistical Softwares : R with parallel computing

 $\bullet$  Others : IATEX, MS-Office