

# Savita Pareek

*Postdoctoral Research Fellow*

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PROFESSIONAL EXPERIENCE	<b>Postdoctoral Research Fellow</b> Auburn University, USA <i>Mentor: Roberto Molinari, Ph.D.</i>  <b>Research Officer &amp; Manager</b> Reserve Bank of India (RBI) Department of Statistics and Information Management	Aug 2024 - present     Feb 2021 - Aug 2024
EDUCATION	<b>Ph.D., Statistics</b> Indian Institute of Technology, Bombay, India <i>Dissertation: On Some Problems in Mixed-effect Models, CPI: 9.0/10</i> <i>Advisor: Siuli Mukhopadhyay, Ph.D.</i>  <b>M.Sc., Mathematical Sciences - Statistics</b> Banasthali University, India, Percentage Marks: 86.72/100  <b>B.Sc., Mathematics, Physics, and Computer Science</b> Banasthali University, India, Percentage Marks: 84.06/100	2018 - 2023     2014 - 2016   2011 - 2014
RESEARCH INTERESTS	Statistical methods for clinical trials; Time series & predictive analytics; Robust statistical learning, Differential privacy; Econometrics; and Interdisciplinary research	
PUBLICATIONS	<b>Pareek, S.</b> , Das, K., and Mukhopadhyay, S., “ <i>Likelihood-based inference for skewed responses in a crossover trial setup</i> ”, Communications in Statistics - Simulation and Computation, Jan 2025 <a href="#">[link]</a>  <b>Pareek, S.</b> , Das, K., and Mukhopadhyay, S. “ <i>Likelihood-based missing data analysis in crossover trials</i> ”, Brazilian Journal of Probability and Statistics, June 2023 <a href="#">[link]</a>  Biswas, D., <b>Pareek, S.</b> , and Saggar S., “ <i>Freight costs of India’s trade</i> ”, RBI Bulletin, June 2022 <a href="#">[link]</a>  <b>Pareek, S.</b> , Khetan, M., Mukhopadhyay, S., and Das, K. “ <i>Clustering gene expression time series data embedded in a non-parametric setup</i> ”, Journal of Statistical Research, Sept 2021 <a href="#">[link]</a>	
CONFERENCE PROCEEDING	Misra, A., <b>Pareek, S.</b> , and Saggar, S., “ <i>Capturing e-commerce transactions from the travel group of BPM6: an Indian experience</i> ”, External Statistics conference organised by the Irving Fisher Committee with the European Central Bank, in collaboration with the Bank of Spain, Madrid, Feb 2024 <a href="#">[link]</a>	
IN PREPARATION	<b>Pareek, S.</b> and Ghosh, S., “ <i>Semiparametric Dynamic Copula Models for Portfolio Optimization</i> ”  <b>Pareek, S.</b> , Insolia, L., Guerrier, S., and Molinari, R. “ <i>Bioequivalence Testing for Binary Outcomes Under Privacy Constraints</i> ”  <b>Pareek, S.</b> , Voirol, L., and Molinari, R., “ <i>Towards Scalable Gaussian Process Regression with a Moment based Estimation Procedure</i> ”	

HONORS & AWARDS	<b>Research Awards</b>	
	• NSF Travel Award, IISA Conference	2024
	• Young Scientist Award, Society of Statistics, Computer & Applications, India	2024
	• CWS Prof. Suddhendu Biswas Student Travel Award	2023
	• IISA Student Travel Award	2022
	• Gold medal for Best Student, Banasthali University, India	2016
	<b>Professional Activity Awards</b>	
	• Certificate of Excellence, RBI Induction Program, RBSC, India	2023
	• Institute Organizational Special Mention, IIT Bombay, India	2021
	• Institute Sports Color, IIT Bombay, India	2021
	• Best Office Bearer, Hostel 11, IIT Bombay, India	2020
	• Player of the year, Department of Mathematics, IIT Bombay, India	2019
	<b>Competitive Exams</b>	
	• 3rd in RBI Officer Exam (Statistics)	2020
	• 6th in GATE (Mathematics): among 6k	2017
	• 24th in CSIR-NET (Mathematical Sciences): among 40k	2017
TEACHING & MENTORSHIP	<b>Instructor</b>	
	Auburn University, Auburn, USA	
	• Introduction to Data Science (STAT 4000)	Spring 2025
	• Probability & Statistics II (STAT 3610)	Fall 2024
	<b>Teaching Assistant</b>	
	Indian Institute of Technology, Bombay, India	
	• Introduction to Probability (SI 427)	Fall 2020
	• Regression Analysis (SI 422)	Spring 2019, 2020
	<b>Mentorship</b>	
	• Undergraduate student, Honors Contract project	Spring 2025
	• Graduate student, Rashomon sets in multi-model inference	Current
	• Graduate student, Differential privacy for compositional data	Current
	• Research intern, India's current account sustainability	Spring 2021
	• Summer interns, Power BI dashboard and the services trade	Summer 2022, 2023
	• Tutored Science & Math to students from underserved communities	2018-19
PRESENTATIONS	<b>Invited Talks</b>	
	• IISA International Conference on Statistics, Kochi, India	Dec 2024
	• External Statistics Conference, Banco de España, Madrid	Feb 2024
	• SSCA International Conference on Statistics, Banasthali, India	Feb 2024
	• Reserve Bank Staff College, Chennai, India (virtual)	Oct 2023
	• Pillai Engineering College, Mumbai, India	Feb 2022
	<b>Contributed Talks/Posters</b>	
	• SDSS 2025 (upcoming)	May 2025
	• ISPS International Conference on Statistics, Allahabad, India	Feb 2024
	• European Meeting of Statisticians, University of Warsaw, Poland (poster)	Jul 2023
	• ENAR 2023 Spring Meeting, Nashville, Tennessee	Mar 2023
	• IISA International Conference on Statistics, Bangalore, India	Dec 2022
PROFESSIONAL ACTIVITIES	<b>Society Membership</b>	
	• American Statistical Association (ASA)	
	• Caucus for Women in Statistics & Data Science (CWS)	
	• International Indian Statistical Association (IISA)	

- Society of Statistics, Computer & Applications (SSCA)

### Service

- Session Chair: Topics in High-Dimensional and Network Data, IISA Conference 2024
- Contributed to ‘State of the Economy’ articles, RBI Monthly Bulletin 2022–2023
- Contributed to Deputy Governor’s Statistics Day Conference speech, RBI 2023
- Committee Member, Placement Cell, IIT Bombay 2021
- Executive Member, Post Graduate Academic Council, IIT Bombay 2020
- Volunteer for IWM and IISA conference, IIT Bombay 2019
- General Secretary, Hostel 11, IIT Bombay 2019
- Led yoga and wellness workshops, inspiring over 2k to live healthier 2020 - present

### Training & Development

- Preparing Future Faculty, Auburn University 2025
- Course (Re)Design Online, Auburn University 2024
- Compilation of National Accounts, 1-week, NSSTA, Noida, India 2022
- JAIIB Certification, Indian Institute of Banking & Finance 2022
- Remittance Statistics, 2-day, IMF’s Statistics Department (virtual) 2022
- Trade in Services Statistics, 6-week, UNSD, WTO, and UNCTAD (virtual) 2021
- BOP & IIP Statistics, 3-month, IMF Institute (virtual) 2021
- Power BI Data Analytics, 2-day, RBSC, Chennai, India 2021
- 500 hrs Yoga Teacher Training, Sri Sri School of Yoga, Bangalore, India 2021
- Mathematics for Data Science, 2-week, IISC Bangalore, India 2019

### COMPUTER SKILLS

- Extensive programming experience with R
- Programming experience with Python, Mathematica, C++, and L<sup>A</sup>T<sub>E</sub>X

### REFERENCES

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