Siddharth Rawat

Curriculum Vitae

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Current Position

Sep '23-Current Postdoctoral Fellow, Biostatistics and Computational Biology Branch, National Institute of Environmental Health Sciences (NIEHS), National Institutes of Health (NIH), Durham, North Carolina, USA.

Research Interests

- Computational Statistics: Bayesian Statistics, MCMC, Spatio-temporal modeling, Bootstrapping, Sports Analytics.
- Computer Science: Machine Learning, Parallel Computing, Simulations, Data Structures.

Education

Jul '19-May '23 Ph.D. in Decision Sciences, Indian Institute of Management, Bangalore, India.

Jul '10-May '14 Bachelor of Technology, Indian Institute of Technology (IIT), BHU, Varanasi, India.

Past Experience

Jul '16-May '19 Oracle India, Hyderabad, India.

o IT Consultant - Worked on JAVA and SQL as part of the Subscription Plan Management Team that managed the software for all clients who have subscribed to Oracle products, which helped Oracle realize its revenue.

Jul '14-Jul '16

Virtusa Consulting Services India, Hyderabad, India.

o Software Engineer-Worked on PEGA, a business process management software, providing consulting services to American Express (AMEX) and Standard and Poor's (S&P).

Publications

• Rawat, S., & Deb, S. (2021). A spatio-temporal statistical model to analyze COVID-19 spread in the USA. Journal of Applied Statistics, 1-20. [publication]

Papers in Progress and Preprints

- o DeVilbiss, E.A., Rawat, S., Scholl, E.H., Petty, T., Kidd, B., May, D., Peddada, S.D., Grewal, U., Perkins, N.J. (2025+) Exposure to extreme temperatures may increase the risk of preterm birth in a dose-response manner: Findings from a contemporary US cohort. Under Review.
- Rawat, S., Deb, S., Berrette, C. (2025+), A Bayesian approach to identify changepoints in spatiotemporal ordered categorical data: An application to COVID-19 data. In Preparation. [preprint]
- Rawat, S., Deb, S. (2025+), Impact of rising temperature on rainfall: A spatio-temporal study from Bangladesh. In Preparation. Preprint available on request.

Conference Presentation

- o DeVilbiss, E.A., Rawat, S., Scholl, E.H., Petty, T., Kidd, B., May, D., Peddada, S.D., Grewal, U., Perkins, N.J. Exposure to extreme temperatures may increase the risk of preterm birth in a dose-response manner: Findings from a contemporary US cohort. Under Review. Abstract accepted for a talk at the Joint Statistical Meetings, held in Nashville, Tennessee, USA, August 2025.
- Rawat, S., Deb, S., Berrette, C. A Bayesian approach to identify changepoints in spatio-temporal ordered categorical data: An application to COVID-19 data. Abstract accepted for a talk at the Joint Statistical Meetings, held in Portland, Oregon, USA, August 2024.

- Rawat, S., Deb, S. (2022), Impact of global warming on rainfall: A Spatio-temporal study. Abstract accepted for a talk at the Royal Statistical Society International Conference 2021, Manchester, UK, September 2021.
- Rawat, S., Deb, S. (2021). A spatio-temporal statistical model to analyze COVID-19 spread in the USA. Abstract accepted for a talk at the Royal Statistical Society International Conference, Manchester, UK, in September 2021.

Teaching Experience

- Course instructor, the Biostatistics and Computational Biology Branch (BCBB), NIEHS, Durham, USA: Regression Models, Summer 2024.
- Course instructor, Indian Institute of Management Bangalore: Essentials of Mathematics Preparatory (MBA in Business Analytics), Summer 2022.
- Teaching assistant, at Indian Institute of Management Bangalore:
 - 1. Decision Sciences 1 (PGP) Sep 2022.
 - 2. Decision Sciences (EPGP) Jun 2022.
 - 3. Decision Sciences (EPGP) Tutorials Jun 2022.
 - 4. Multivariate Statistics (PhD) Apr 2022.
 - 5. Spreadsheet Modelling for Business Decision Problems (PGP) Dec 2021.

Peer Review

• Reviewed manuscript for **Scientific Report** in February 2025.

References

- Shyamal D. Peddada, Deputy Chief and Senior Investigator, Biostatistics and Computational Biology Branch, National Institute of Environmental Health Sciences (NIEHS), National Institutes of Health (NIH), Durham, North Carolina, USA - shyamal.peddada@nih.gov - +1 984-287-4586
- Neil J. Perkins, Staff Scientist, Biostatistics and Bioinformatics Branch (BBB), Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), National Institutes of Health (NIH), Rockville, Maryland, USA - perkinsn@mail.nih.gov- 301-435-6928
- Soudeep Deb, Associate Professor and Chairperson, Decision Sciences Area, Indian Institute
 of Management, Bangalore, India soudeep@iimb.ac.in +91 80 2699 3387

External Courses

• Machine Learning by Stanford University. [certificate]

Honors and Awards

- Intramural Targeted Climate Change and Health (ITCCH) funding for the postdoctoral position at NIEHS.
- 99.9 percentile certificate for computer science (with C++) in 12th standard (senior year) nationwide Central Board of Secondary Education (CBSE) examinations.

Technical Strengths

- Proficient: R, Java, SQL, Latex.
- **Intermediate**: Python, C++.
- Working Knowledge: C, MATLAB.

Languages

• English, Hindi: Fluent in reading, writing, speaking.

Interests

Basketball, Soccer, Reading.