Ranadeep Daw

Curriculum Vitae

Department of Mathematics & Statistics
University of West Florida
Pensacola, FL
✉ *rdaw@uwf.edu*
dawranadeep.github.io

Current Position

Aug 2024– Assistant Professor of Statistics, University of West Florida

Research Interests

Spatiotemporal modeling, low-rank methodologies, data reduction, environmental risk, random neural networks, computational tools, Bayesian analysis

Education

2018–2023 **Ph.D. in Statistics**, *University of Missouri - Columbia*
GPA: 3.878
Advisor: Dr. Christopher K. Wikle
Thesis topic: Methodologies for low-rank analysis and regionalization for multi-scale spatial datasets

2014–2016 **Master of Statistics (M. Stat.)**, *Indian Statistical Institute*, Kolkata

2011–2014 **Bachelor of Statistics (B. Stat.)**, *Indian Statistical Institute*, Kolkata

Work Experience

Jul 2023– Jul 2024 **Postdoctoral fellow**, *National Institute of Environmental Health Sciences*, Durham, NC
Working on spatiotemporal exposure modeling and supervised environmental risk modeling.

Aug 2018– Jul 2019 **Intern**, *Missouri Department of Conservation*, Columbia, MO
Served as part of my research assistantship. Worked on species distribution models, small area estimation, and bootstrapping.

Jun 2016– Dec 2017 **Data Scientist**, *Deloitte US India*, Hyderabad, India
Addressed statistical queries in various business-related sectors and implement them in user-friendly tools for third-party use. Worked on real-world data from the insurance, banking, medical, and retail sectors.

May 2015– Jul 2015 **Intern**, *General Electric*, Bangalore, India
Implemented fast heuristic time series algorithms.

May 2014– Jul 2014 **Intern**, *FinIQ*, Pune, India
Visual Basic-based automation of financial algorithms in Excel.

Research Projects

Accepted Papers

1 **Daw, R.**, Wikle, C. K. (2025+). Efficient computation of orthogonal basis functions for spatial change-of-support problems. *Gujarat Journal of Statistics and Data Science*.

2 Schliep, E. M., Wikle, C. K., **Daw, R.** (2023). Correcting for informative sampling in spatial covariance estimation and kriging predictions. *Journal of Geographical Systems*, 1–27.

3 **Daw, R.**, Wikle, C. K. (2022). Supervised spatial regionalization using the Karhunen-Loève Expansion and minimum spanning tree. *Journal of Data Science* 20 *no.* 4. 566–584, *DOI 10.6339/22-JDS1077*.

4 **Daw, R.**, Wikle, C. K (2022). REDS: Random Ensemble Deep Spatial prediction. *Environmetrics, e2780,* 1180–4009, *DOI 10.1002/env.2780*.

5 **Daw, R.**, Simpson, M., Wikle, C. K., Holan, S. H., Bradley, J. R. (2022). An overview of univariate and multivariate Karhunen Loève expansions in Statistics. *Journal of the Indian Society for Probability and Statistics*, 1–42.

6 Chakraborty, S., Menifield, C. E., **Daw, R.** (2022). Impact of Stand Your Ground, Background Checks, and Conceal and Carry Laws on homicide rates in the US. *Journal of Public Management and Social Policy*.

7 Yeasmin, F., **Daw, R.**, Chakraborty, B., Gupta, A., Bhattacharya, S., Chakraborty, B. (2021). A new growth rate measure in identifying extended Gompertz growth curve and development of goodness-of-fit test. *Calcutta Statistical Association Bulletin*, Volume 73, 127–145.

Submitted Papers

8 **Daw, R.**, Bradley, J. R., Wikle, C.K., Holan S. H. (2025+). A Criterion for Aggregation Error for Multivariate Spatial Data. Submitted to *Journal of Statistical Planning and Inference.*

9 **Daw, R.**, Bhattacharya, I., Chakraborty, S. (2026+). Causal Effects of Urban Amenities on airbnb Prices: A Hybrid Spatial Filtering Approach. Submitted to *Statistical Analysis and Data Mining.*

10 **Daw, R.**, Bagui, S. C. (2026+). Teaching Bayesian Modeling to a Beginner: A Case Study with McKinney-Vento Requirements. Submitted to *Journal of Mathematics and Mathematics Education.*

Ongoing Papers

11 **Daw, R.**. (2026+). Analysis of Mckinney-Vento Requirements in Florida: a machine learning approach

12 **Daw, R.**, Evans, H. (2026+). Sparse Spatial Filtering for Areal Data: A Comparative Study of Basis Functions and SVCs with Application to Physical Distress. Planned to submit to *Statistical Modeling*.

Conferences

Invited Talks

2025 **FL-ASA**, *(Florida ASA Chapter)*, Efficient computation of orthogonal basis functions for spatial change-of-support problems.

2025 **JMM**, *(Joint Mathematics Meetings)*, Efficient computation of orthogonal basis functions for spatial change-of-support problems.

2021 **JSM**, *(Joint Statistical Meetings)*, Application of coresets in Spatial Modeling.

Contributed Talks

2021 **IISA Conference**, *(International Indian Statistical Association)*, Application of coresets in Spatial Modeling.

2020 **JSM**, *(Joint Statistical Meetings)*, Uncertainty Quantification and Inference for Spatiotemporal Forecasting via Echo State Mixture Density Networks with Relevance Propagation.

Poster Presentations

2024 **Theory and Foundations**, *Florida State University*, SBoost: A spatially-aware Boosting Model for Large Spatial Prediction.

2024 **Science Day**, *NIEHS (National Institute of Environmental Health Sciences)*, SBoost: A spatially-aware Boosting Model for Large Spatial Prediction.

2022 **Applied Statistics Symposium**, *ICSA (International Chinese Statistical Association)*, REDS: Random Ensemble Deep Spatial prediction.

2019 **Deep Learning Program Opening Workshop**, *SAMSI (Statistical and Applied Mathematical Sciences Institute)*, Deep Neural Network in Cusp Catastrophe Model

2018 **Innovations in Design, Analysis, and Dissemination**, *Frontiers in Biostatistical Methods*, Does Changing Handgun Laws Affect Crime Rates?

Teaching Experience

Fall 2024 – current **Assistant Professor, Statistics**, *UWF*
- *STA4173* Biostatistics
- *STA5176* Statistical modeling
- *STA6235* Regression modeling

Fall 2019 – Spring 2020 **Graduate Instructor**, *Mizzou*
- *Stat 3500*: Probability and Statistics - II

Spring 2018 **Teaching Assistant**, Mizzou

Service & Membership

Peer Review Reviewer for *Spatial Statistics*, *Signal Processing*, *Environmetrics*, *Data Science in Science*, *Biometrics*.

Professional Membership Member of *American Statistical Association*.

Technical Expertise

Computing MATLAB, `Python`, `SAS`, `R`.

Programming `C`, `C++`, LaTeX.

Visualization `Tableau`, `HTML`, `JavaScript`, `JavaScript-D3`.

Cloud `Lewis` cluster, `Nautilus`, `Google colab`.

Academic Awards

2011–2016 Received the **INSPIRE** scholarship administered by the Department of Science and Technology of the Government of India.

2010 Cleared the **Regional Mathematical Olympiad** and qualified for the national level examination.

Miscellaneous

Leadership Experience

2020 Organized spatiotemporal research meetings at University of Missouri – Columbia.

2019–20 Committee member of the Statistics graduate students association at University of Missouri – Columbia.

2015 General Secretary of the annual techno-cultural and sports festival at the Indian Statistical Institute, Kolkata.

2014–15 Student Representative of the boys' hostel of Indian Statistical Institute, Kolkata.

2014 Treasurer of the annual college techno-cultural and sports festival at the Indian Statistical Institute, Kolkata.

2012–14 Member of food, sports, and cultural committees at the boys' hostel of Indian Statistical Institute, Kolkata.

Mentoring Experience

1 Worked as consultant in the Data Fest, a data analysis workshop organized by the Department of Statistics, University of Missouri.

2 Responsible for mentoring two newly-hired employees at Deloitte. Worked on a coding project with one mentee.

Extracurricular Activities

Play contract bridge, soccer.

Languages Known

English, Bengali (mother tongue), Hindi.

I hereby do certify that all the above information is true to the best of my knowledge.
Ranadeep Daw
January 5, 2026