

Zobaer Ahmed, Ph.D.

East Meadow, NY, USA | Email: zunnun09@gmail.com

Personal: <https://www.zobaerahmed.us/> | LinkedIn: www.linkedin.com/in/zobaer-ahmed

Insight-Driven Researcher, Data Scientist & Methodologist | Machine Learning, GIS & Remote Sensing | Monitoring, Evaluation & Learning Leader | Erasmus Mundus Scholar | Harnessing R to Drive Data Analysis & Visualization

Professional Summary

Accomplished data scientist, researcher, and project manager with over 10 years of experience directing international research initiatives and managing projects across governmental and non-governmental sectors. Proven success in managing large-scale evaluations, securing grants, and producing actionable insights through advanced statistical modeling and machine learning techniques. Proficient with technical tools and programming languages including R, SQL, Power BI, ArcGIS, and Google Earth Engine. Strong communicator known for converting complex data into actionable strategic insights, significantly enhancing overall project success.

Professional and Research Work Experience

Director of Research and Evaluation | NYC Mayor's Office to ENDGBV, USA

July 2023 - Present

- Lead the research and evaluation team, driving collaborative projects and comprehensive strategic planning aligned with organizational goals.
- Apply Lean Six Sigma methodologies to optimize processes, reduce operational costs, and enhance organizational efficiency.
- Design and implement major initiatives, including NYC's first Street Harassment Survey, NYPD Domestic Incident Report (DIR) Dashboards, City Agency Human Trafficking Survey, redesigning the Rapid Re-housing (RRH) referral system and many more.
- Author analytical reports evaluating program impacts (Early RAPP, Home+) to guide policy and strategic decisions.
- Integrate SQL Server with analytical platforms (R-Studio, Power BI, IRM software) for advanced data analytics.
- Design and maintain R Quarto projects to produce dynamic, reproducible reports that integrate code, analysis with written interpretation.
- Foster strategic partnerships with city agencies (MOCJ, ACS, HRA, NYPD) for enhanced research collaboration and knowledge sharing.

Senior Research Assistant | CAST, University of Arkansas, USA

May 2021 – July 2023

- Developed advanced geospatial modeling algorithms using Google Earth Engine, ArcGIS, and R-Studio.
- Collaborated on NASA and NSF grant proposals, successfully securing funding for critical research.
- Utilized statistical and machine learning methods to assess USDA-NRCS conservation initiatives in the Arkansas-Mississippi Delta.
- Led data-driven research projects resulting in peer-reviewed journal publications.

Graduate Research Assistant | Arkansas State University, USA

Jan 2020 – May 2021

- Conducted extensive data analysis on agricultural datasets, publishing impactful research on climate risks and agricultural technology adoption.
- Co-led environmental impact studies focusing on agricultural burning and ecological effects.
- Enhanced soil moisture modeling and UAV-based monitoring strategies as part of the geospatial research team.

Resume

Visiting Research Fellow | Florence University, Italy

Sept 2018 – May 2019

- Trained and mentored over 25 master's students in environmental impact assessment methodologies.
- Delivered guest lectures and workshops on research methods and proposal writing.

Assistant Manager, Research (MEL) | Friendship NGO, Bangladesh

Jan 2013 – Aug 2017

- Managed over 30 sustainable development projects, successfully securing funding for 12+ proposals.
- Designed extensive monitoring and evaluation (M&E) frameworks, key performance indicators (KPIs), developed survey instruments, and performed detailed program evaluations.
- Created comprehensive M&E manuals and collaborated with international partners (SIDA, KPMG, Unilever).

Research Country Manager | Premise Data, USA

Mar 2016 – Sept 2017

- Led a large team of over 3,000 researchers, managing financial transactions exceeding \$500,000.
- Developed and implemented comprehensive training manuals and data collection guidelines.

Education

- **Ph.D., Environmental Dynamics** | University of Arkansas, USA
- **M.Sc., International Rural Development** | Ghent University, Belgium
- **M.Sc., Disaster & Climate Change Management** | University of Dhaka, Bangladesh
- **B.Sc., Agriculture** | Bangabandhu Agricultural University, Bangladesh

Technical Skills and Competencies

- **Data Analysis & Visualization:** R, SQL, Power BI, Google Earth Engine, ArcGIS, SPSS
- **Research Methodologies:** Statistical modeling, machine learning, geospatial analysis, remote sensing, UAV-based monitoring
- **Project Management & Evaluation:** Logical frameworks, KPIs, MEL frameworks, Theory of Change, Lean Six Sigma methodologies
- **Software & Tools:** R-Studio, Positron, VS Code, Jupyter Notebook, GitHub, Qualtrics, SurveyMonkey, ODK, Kobo Toolbox, Microsoft Suite, Prezi

Statistical/Data Science/ R Package Development

- **FakeDataR** is an R package that generates realistic but synthetic datasets that mirror original data schema, types, factor levels, and missingness, so anyone can prototype prompts, dashboards, and pipelines without exposing private data. Published in Comprehensive R Archive Network (CRAN).
- **Zashboard** is an R package which is currently under development that lets users define a dashboard once, then build it as static HTML, a Shiny app, a Shinylive app or a Quarto site.

Certifications and Training

- Lean Six Sigma Green and White Belt
- Microsoft Project Management
- Power BI Data Analyst (PL-300T00)
- Statistical Programming using R and R-Studio
- Climate Adaptation Metrics
- International Training on Monitoring and Evaluation
- SPSS Professional Training

Publications (New York City Government)

- 2024 Snapshot of Reported Sex Crimes and Rapes in New York City

Resume

- Early Relationship Abuse Prevention Program (Early RAPP): Effectiveness in Preventing Dating Violence Among Middle School Students
- The Relationship Between Domestic Violence and Shooting Incidents in New York City
- Home+ Flexible Funding: 180-Day Report Local Law 112 of 2022
- Survey Report on Street Harassment in New York City

Peer Reviewed Publications (Scholarly Articles)

- **Ahmed, Z.**, Connor, L., Brye, K., Green, V. S., Popp, M., Shew, A., & Nalley, L. L. (2025). Satellite remote sensing reveals voluntary cover-crop adoption and crop-rotation hotspots in the Mississippi Alluvial Plain. *PLOS ONE*, 20(10), e0331797. <https://doi.org/10.1371/journal.pone.0331797>
- **Ahmed, Z.**, Nalley, L. L., Brye, K. R., Green, V. S., Popp, M. P., Shew, A. M., & Connor, L. (2023). Winter-time cover crop identification: A remote sensing-based methodological framework for new and rapid data generation. *International Journal of Applied Earth Observation and Geoinformation*, 125, 103564. <https://doi.org/10.1016/j.jag.2023.103564>
- **Ahmed, Z.**, Shew, A., Nalley, L., Popp, M., Green, V. S., & Brye, K. (2024). An examination of thematic research, development, and trends in remote sensing applied to conservation agriculture. *International Soil and Water Conservation Research*, 12(1), 77–95. <https://doi.org/10.1016/j.iswcr.2023.04.001>
- **Ahmed, Z.**, Shew, A. M., Mondal, M. K., Yadav, S., Jagadish, S. V. K., Prasad, P. V. V., & Bakuluzzaman, M. (2022). Climate risk perceptions and perceived yield loss increases agricultural technology adoption in the polder areas of Bangladesh. *Journal of Rural Studies*, 94, 274–286. <https://doi.org/10.1016/j.jrurstud.2022.06.008>
- **Ahmed, Z.**, Guha, G. S., Shew, A. M., & Alam, G. M. M. (2021). Climate change risk perceptions and agricultural adaptation strategies in vulnerable riverine char islands of Bangladesh. *Land Use Policy*, 103, 105295. <https://doi.org/10.1016/j.landusepol.2021.105295>
- **Ahmed, Z.**, Lotze-Campen, H., & Kabir, M. H. (2021). Agriculture in riverine chars: Vulnerabilities to climate change and community-based adaptation. In M. Zaman & M. Alam (Eds.), *Living on the edge: Char dwellers in Bangladesh* (pp. 275–289). Springer. https://doi.org/10.1007/978-3-030-73592-0_16

References Available upon request.