

M SHAHRIAR SONET

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EDUCATION

PhD, Geospatial Information Sciences - The University of Texas at Dallas	2024 - 2029
GPA: 3.85	
MS, Geography & the Environment - Texas Tech University	2022 - 2024
GPA: 3.88	
MSS, Disaster & Human Security Management - Bangladesh University of Professionals	2020 - 2021
GPA: 3.95 (Dean's List)	
BSS, Disaster & Human Security Management - Bangladesh University of Professionals	2016 - 2019
GPA: 3.71 (Dean's List)	

TECHNICAL SKILLS

- **Programming:** Python, Java, R
- **GIS & Remote Sensing:** ESRI products, ArcPy, QGIS, ENVI, Google Earth Engine, SAR, SNAP
- **Data & Databases:** SPSS, STATA, Tableau, SQL, PostgreSQL, MS Access
- **Field & Web GIS:** Survey123, Field Maps, Kobo Toolbox, Story Maps
- **Other:** Microsoft Office, Adobe Creative Suite, LaTeX

PROFESSIONAL EXPERIENCE

The University of Texas at Dallas	Richardson, TX
Teaching Assistant	Aug 2024 - Present
▪ Served as instructor of record for Digital Earth; lead labs for Health & Environmental GIS and Smart & Sustainable Cities. ▪ Developed and teach introductory remote sensing and GIS labs. ▪ Built a Sentinel-1 SAR analysis pipeline in Google Earth Engine and Python for the 2022 Eastland Complex fire, applying spatial statistics (Moran's I, LISA, Getis-Ord Gi*, GWR); presented at AAG 2026.	
Texas Tech University	Lubbock, TX
Teaching & Research Assistant	Aug 2022 - Aug 2024
▪ Taught Environmental Science, Introduction to GIS, Web Mapping & Geovisualization, Spatial Database. ▪ Instructed spatial data classification, raster processing, and cartographic workflows in ArcGIS ▪ Led labs on suitability modeling, DEM & wind-exposure analysis, and topology on QGIS & PostgreSQL ▪ Analyzed historical spatiotemporal climate data across Texas; published in Journal of Hydrology.	
Bangladesh Centre for Communication Programs (Johns Hopkins CCP)	Dhaka, Bangladesh
Program Officer	Feb 2022 - Jul 2022
▪ Designed Kobo Toolbox training and survey modules for health professionals. ▪ Produced ArcMap study-area maps on climate change for quarterly reports.	
Centre for Environmental & Geographic Information Services (CEGIS)	Dhaka, Bangladesh
Research Consultant	May 2020 - Dec 2021
▪ Digitized 800+ sq km of Landsat, Sentinel, and KOMPSAT imagery into a feature database on ArcMap.	

- Extracted LULC features and built project geodatabases; produced field-operator maps and performed quality control.

PUBLICATIONS

- Sonet, M. S., Hasan, M., & Kafy, A. A. (2026). *Machine learning-enhanced precipitation forecasting in arid regions: Advancing climate modelling techniques in Lubbock, Texas*. Theoretical and Applied Climatology, 157, 308.
- Sonet, M. S., & Reygadas, Y. (2025). *Unveiling four decades of spatiotemporal climate trends in Texas (1981-2023)*. Journal of Hydrology: Regional Studies, 60, 102539.
- Sonet, M. S., Hasan, M. Y., Kafy, A. A., & Shobnom, N. (2025). *Spatiotemporal analysis of urban expansion, land use dynamics, and thermal characteristics in a rapidly growing megacity using remote sensing and machine learning techniques*. Theoretical and Applied Climatology.
- Sonet, M. S., Hasan, M. Y., Chakma, S., & Al Kafy, A. (2024). *Assessing tropical cyclone impacts in coastal Bangladesh: A change detection analysis on cyclone Bulbul using geospatial analysis and remote sensing techniques*. International Journal of Disaster Risk Reduction, 112, 104726.

Plus 2 co-authored articles and 4 conference presentations (AAG 2023-2026). Full list available on request.

CERTIFICATIONS & TRAINING

Graduate Certificate in Geospatial Intelligence - UT Dallas	2026
Graduate Certificate in Geographic Information Systems (GIS) - UT Dallas	2025
Graduate Certificate in Remote Sensing - UT Dallas	2025
Graduate Certificate in Spatial Data Science - UT Dallas	2025
Geographic Information Science & Technology Certificate - Texas Tech University	2023
Geospatial Information Technology in Fragile Contexts - UN Satellite Centre	2021
Nature-based Solutions for Disaster & Climate Resilience - UN Environment Programme	2021
Disaster Response Exercise & Exchange - U.S. Army & Bangladesh Gov.	2019

AWARDS & FELLOWSHIPS

- Pioneer Student Research Grant Award - The University of Texas at Dallas
- Provost Scholarship - The University of Texas at Dallas
- Department of Geosciences Fellowship; Larry McIver Memorial Scholarship; Geography Excellence Scholarship - Texas Tech University

SERVICE & AFFILIATIONS

- Member, American Geophysical Union (2025 - Present)
- Member, American Association of Geographers (2022 - Present)
- Secretary, Geography & YouthMappers Club, Texas Tech University (2023 - 2024)
- Editorial Board Member, Earth Sciences Journal (2024 - Present); Peer Reviewer for Elsevier, Springer, Taylor & Francis, and Wiley Journals (2023 - Present)