

Naiem Sheikh

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Executive Summary

I specialize in **Remote Sensing and GIS applications in agriculture**, leveraging **machine learning (ML) and deep learning (DL)** for advanced **geospatial analysis**. My expertise includes integrating remote sensing data with innovative algorithms to optimize crop monitoring, yield prediction, and sustainable land management. With a strong foundation in geospatial technologies, I focus on bridging research and practical applications to address critical challenges in agroecosystem management and promote data-driven decision-making.

Education

Oklahoma State University, OK, US

August 2024- Current

Degree: *PhD in Geography*

- **Specialization:** Geospatial Technologies including GIS, UAS and Remote Sensing
- **Dissertation Title:** Investigating the impacts of climate and management practices on agroecosystems in the Southern Great Plains (SGP) using remote sensing and in-situ observations

Jahangirnagar University, Dhaka, Bangladesh

September 2022 – December 2023

Degree: *M.Sc. in Geography and Environment (Thesis)*

Final grade: 3.95 out of 4

- **Major Courses:** Contemporary Geographic Thoughts, Research Methodology, Remote Sensing for Resource Appraisal and Mapping, Applications of Geographic Information Systems (GIS), Laboratory Analysis of Environmental Components, Population and Environment, Global Warming and Climate Change, Rural Geography and Development
- **Activities:** Employing as Graduate Research Assistant (GRA) for Professor Dr. Md. Shahedur Rashid.
- **Thesis Title:** Assessing Regional Disparity Using Nighttime Light Data to Monitor Sustainable Development

Jahangirnagar University, Dhaka, Bangladesh

March 2017 - August 2022

Degree: *B.Sc. (Hons) in Geography and Environment*

Final grade: 3.77 out of 4

- **Major Courses:** Remote Sensing for Environment, Advance GIS, Spatial Analysis, Cartography, Statistics, Climatology, Geography of Natural Hazard, Digital Image Processing, Models in Environmental Geography, Natural Resource Management, Economic Geography, Oceanography, Biogeography, Urban Geography, Population and Census Geography, Hydrology, Geomorphology, Anthropogeography, Mathematics
- **Activities:** Employed as Undergrad Research Assistant of Professor Dr. Md. Shahedur Rashid. Volunteered and held a leadership position at two university clubs as well as a class representative (CR) position. Initiated a project to reduce environmental pollution of University Campus.
- **Report Title:** Assessing Ecotourism Potentiality of Sundarbans, Bangladesh Using GIS and AHP Techniques

Work Experience

Department of Geography

August 2024- Present

Oklahoma State University, Stillwater, OK, US

Role: *Graduate Research Assistant* / Type: *Part-time*

Website: <https://cas.okstate.edu/geography/>

- Assisting in investigating the impacts of climate and management practices on agroecosystems in the Southern Great Plains (SGP) through remote sensing and in-situ observations.
- Conducting field visits to USDA-managed research sites in Oklahoma to support data collection and understand agroecosystem dynamics.

Centre for Environmental and Geographic

September 2023- June 2024

Information Services (CEGIS)

House # 6, Road # 23/C, Gulshan 1, Dhaka-1212, Bangladesh

Role: Research Consultant | Type: Full-time

Website: <https://www.cegisbd.com/>

- Doing landuse mapping using satellite images (high resolution) and remote sensing technology and integrating them with plot boundary.

Department of Geography and Environment, Jahangirnagar University

September 2022 – September 2023

Role: Graduate Research Assistant | Type: Project Based

Website: <https://juniv.edu/departement/geoenv>

- Submitted one article in an International Journal on Nighttime Remote Sensing
- Involved In three ongoing research projects on Nighttime remote sensing, Landuse and Land cover, and Agriculture
- Identifying Shoreline vegetation pattern using deep learning techniques
- Assessing and predicting agricultural land degradation of Bangladesh using geospatial technologies

Department of Geography and Environment, Jahangirnagar University

March 2020 – August 2022

Role: Undergraduate Research Assistant | Type: Project Based

Website: <https://juniv.edu/departement/geoenv>

- Published one article on Ecotourism using GIS and RS in a peer review journals as first author
- Conducted research by reviewing literature, writing reports, collecting data and making maps using GIS-RS
- Participated and volunteered in various national and international events as a representative of G&E-JU

Research Society

March 2020 – April 2022

Role: Research Assistant | Type: Project Based

Website: <https://researchsociety20.org/>

- Submitted one article in an International Journal ([Natural Hazard](#)) on Coastal Flooding
- Collected baseline information, conducted household survey, study area visit, data entry, coding, decoding, and reporting for two years for aiding a research project

Publications

Published article

1. Akter, S., Md. T. Hossain, **N. Sheikh**, F. Redwan, Md. M. Billah, S. Sheikh, Md. H. Rahman, K. Nahar, A. Siddequa, and Most. N. B. Nur. 2024. [Risk Perceptions and Vulnerability Assessment: Induced from Tropical Cyclone in the Southern Part of Coastal Bangladesh](#). *Journal of Agroforestry and Environment* 17 (1):36–49.
2. **Sheikh, N.**, Habib, M. A., & Rashid, M. S. (2023). [Assessing Ecotourism Potentiality of Sundarbans, Bangladesh Using GIS and AHP Techniques](#). *The Jahangirnagar Review, Part-C*, 32, 603–616.

Book

3. Eshita, N. R., **Sheikh, N.**, Talukder, A., & Analysis, D. (2023). [Scientific Data Analysis and Visualization with Python Programming, Data Analysis, and Visualization with Python](#). Editors Professor Dr Yubin Li

Under Review

4. Mahi, M. M., **Sheikh, N.**, Chakraborty, T. Flood Impact Assessment on ESV and Socio-Economic Factors in Sylhet Region: A Google Earth Engine Based Approach. *Land Use Policy*.

Project

Environmental Pollution Control

April 2018-April 2019

- Here my responsibility was to manage and monitor different events which were undertaken by Youth Environmental Stance (YES) Bangladesh related to sustainable environmental management.

International Competition

18 SuperMap GIS Contest (Beijing, China)

December 2020

Challenge Prize Winner

Website: <http://www.giscontest.com/en/list-39.aspx>

- Presented a map of Dhaka city with its facilities and make a suitability analysis for the best place to live in

Awards and Grants

Jahangirnagar University

12 Nov 2024

Bangladesh government general scholarship

Website: <https://juniv.edu/>

Ministry of Science and Technology, Bangladesh

11 OCT 2023

National Science and Technology Fellowship

Website: <https://most.gov.bd/>

- Awarded the Nationwide best Master's research projects by the government of Bangladesh

Jahangirnagar University

Website: https://juniv.edu/discussion?event_id=8

University Excellence Stipend

- This award was based on my excellent academic result in my undergraduate.

Disaster Research Training and Management Center (DRTMC)

16 JUL 2023

Disaster Related Research Grant

Website:

https://www.du.ac.bd/research_program_activity/21

- This award was provided to the excellent graduate researcher to aid his/her research work.

Badhan

January 2023

Best Donor

Website: <https://badhan.org/>

- Badhan, a voluntary blood donors' organization awarded me as a best blood donor for my donation of blood on a voluntary basis.

Leadership and Other Affiliations

Bangladesh Student Association, OSU

December 2024 - Present

Sports Secretary

Graduate and Professional Student Government Association, OSU

January 2025 - Present

Department Representative

Bangladesh Students League, JU

March 2023 – June 2024

Liberation war and Research Secretary

Selected Training and Workshops

- **Supervised Machine Learning: Regression and Classification**
Mode: *Virtual*; Organized by: *Stanford University via Coursera*; Issued on: *Nov-2024*
- **Monitoring Water Quality of Inland Lakes using Remote Sensing**
Mode: *Virtual*; Organized by: *NASA (ARSET)*; Issued on: *Oct-2023*
- **Digital Image Processing with OpenCV in Python**
Mode: *Virtual*; Organized by: *Geo University*; Issued on: *Jul-2023*
- **Spatial Data Science: The New Frontier in Analytics**
Mode: *Virtual*; Organized by: *Environmental Systems Research Institute (ESRI)*; Issued on: *Dec-2020*
- **Geospatial Technology for Smart Agriculture and Smart City Management**
Mode: *Virtual*; Organized by: *Geospatial Awareness Hub*; Issued on: *Dec-2020*
- **Remote Sensing of Coastal Ecosystems**
Mode: *Virtual*; Organized by: *NASA (ARSET)*; Issued on: *Sep-2020*
- **GIS, Mapping, and Spatial Analysis Capstone**
Mode: *Virtual*; Organized by: *University of Toronto*; Issued on: *Jul-2020*
- **Spatial Analysis and Satellite Imagery in a GIS**
Mode: *Virtual*; Organized by: *University of Toronto*; Issued on: *Jul-2020*
- **Programming for Everybody (Getting Started with Python)**
Mode: *Virtual*; Organized by: *University of Michigan*; Issued on: *Aug-2020*
- **Computer Programming and Data Analysis with Python**
Mode: *In person*; Organized by: *Research Society*; Issued on: *Dec-2020*

Skills

- **Research Skill:** Systematic Literature Review, Report writing, Quantitative and Qualitative Data Collection and Analysis
- **Technical Skill:** GIS (ArcGIS, QGIS, Google Earth Engine, SuperMap GIS, Google Earth Pro), Remote Sensing (Erdas Imagine, IDRISI Selva), Programming (Python, R, JavaScript, NCL and SQL), MS Office and Google Suite
- **Soft Skill:** Team Leadership, Communication, Networking, Public Speaking, Presentation
- **Language:** *English:* Good (IELTS: Overall-7.5; L-8.5, R-7.5, W-6.5, S-6.5), *Bengali:* Native

References

Dr. Yuting Zhou

Assistant Professor

Department of Geography

Oklahoma State University, Stillwater, OK

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Phone: 405-744-9168

[Profile](#)

Professor Dr. Shahedur Rashid

Chairman and Professor

Department of Geography and Environment

Jahangirnagar University, Bangladesh

Email m.s.rashid@juniv.edu,

Phone (+880) 1711365233

[Profile](#)

[Dr. Md. Jalal Uddin](#)

Founder and Director

Research Society

Postdoc Fellow

Zhejiang University, Hangzhou, China

Email dmjalal90@gmail.com,

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[Google Scholar](#)

[Rezaul Roni](#)

Associate Professor

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