

Joynal Abedin (He/Him)

Assistant Professor

Department of Environmental Sciences
Louisiana State University, Baton Rouge, LA

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RESEARCH & TEACHING INTERESTS

- Human-Environment Interactions
- Climate Change and Environmental Health
- Natural Hazard & Disaster Risk Assessment
- Community Resilience & Vulnerability Assessment
- Spatial Statistics and Modeling
- Remote Sensing
- Spatial Data Science
- Big Data and Microdata Analytics
- Geographic Information Science
- Geospatial Artificial Intelligence (GeoAI)

EDUCATION

2021-2025	Ph.D.	Geography, Texas A&M University, College Station, Texas, USA • Dissertation: <i>Modeling the Dynamics of Climatic and Environmental Hazard Risks by Leveraging Geospatial Data Science.</i> ✓ Graduate Student Excellence in Research Award (2025), TAMU.
2017-2018	MSc.	Human Geography and Environment, University of Dhaka, Dhaka, Bangladesh
2013-2016	BSc.	Geography and Environment, University of Dhaka, Dhaka, Bangladesh

AWARDS AND ACHIEVEMENTS

2025	CaGIS Ph.D. Student Scholarship , Cartography & Geographic Information Society (CaGIS).
2025	Graduate Student Excellence in Research Award , Texas A&M University.
2025	1st Position , Graduate Student Research Competition (Poster), Student Research Week 2025, Texas A&M University.
2024	2nd Position , Texas GIS Day 2024 Graduate student presentation competition.
2024	Travel Grant, AAAS Section E Travel Grant for the AAAS Conference in Boston 2025.
2024	Travel Award, NSF funded Cyber-Training for Disaster Management Workshop, CO.
2024	Accepted for NSF I-GUIDE Summer School 2024, UCAR, Boulder, CO with travel award.
2024	NSF I-GUIDE 2024 Virtual Poster Competition Winner (Co-author).
2023	American Association of Geographers (AAG) Research Grants 2023 (1 of 3 awardees globally) .
2023	1st Position , Texas GIS Day 2023 Graduate student presentation competition.
2023	Graduate Student Excellence in Teaching Award 2023 , Texas A&M University.
2023	International Cartographic Association (ICA) Scholarship 2023, Cape Town, South Africa.
2023	U.S. National Committee (USNC) to the ICA Travel Award, 31 st International Cartographic Conference, Cape Town, South Africa.
2023	AAG Graduate Student Affinity Group (GSAG) Research and Support Awards.

- 2023 Jeanne X. Kasperson Student Paper Competition Winner at AAG 2023, Denver, CO, USA.
- 2019 Research Grants for MSc Thesis, DRTMC, University of Dhaka, Bangladesh.
- 2019 **Merit Scholarship**, University of Dhaka, Bangladesh.
- 2018 Faizunnessa Kabiruddin Rahmani Memorial Foundation Scholarship for attaining highest CGPA in B.Sc. program, University of Dhaka, Bangladesh.
- 2014 **1st position**- Oceanographic Olympiad, University of Dhaka, Bangladesh.

APPOINTMENTS

• Academic Institutions

- 2026-pres. Assistant Professor, Department of Environmental Sciences, Louisiana State University.
- 2025-2026 Assistant Professor of Instruction, Department of Geography, Ohio University.
- 2023-2025 Graduate Research Assistant, Department of Geography, Texas A&M University.
- 2021-2023 Graduate Teaching Assistant, Department of Geography, Texas A&M University.

• Professional Organizations

- 2020-2021 Research Associate, IPE Global Limited, Dhaka, Bangladesh.
- 2020-2021 Junior Urban Planner, BETS Consulting Service Limited, Dhaka, Bangladesh.
- 2019-2020 Local Project Assistant, WhereIsMyTransport, Dhaka, Bangladesh.

PUBLICATIONS

Notes:

➤ Total Publications: 28

- ✓ Journal Articles – published: 18, in review/prep: 5
- ✓ Conference Proceedings – published: 4
- ✓ Book Chapters – published: 1

➤ Citations (according to [Google Scholar](#))

- ✓ Total: 750
- ✓ h-index: 11
- ✓ i10-index: 12

• Journal Articles

- In Prep. 23. **Abedin, J.**, Akter, H., Sabrina, S., Shadik, J., Zou, L. A Comprehensive Nationwide Spatial-Temporal Dataset of Brickfield Locations in Bangladesh from 2000 to 2023.
- In Prep. 22. **Abedin, J.**, Zou, L., Mandal, D., Akter, H., Sabrina, S. Deciphering Spatio-Temporal Dynamics of Nationwide Brickfield Development in Bangladesh.
- In Review 21. **Abedin, J.**, Zou, L., Sumiya, N.N., Yang, M., Zhou, B., Ara, S., Lin, B. Exploring the Impacts of Air Pollution on Health Disparities through GIScience: A Systematic Literature Review. *GeoHealth*.
- Accepted 20. Yang, M., Zou, L., Doria, E., **Abedin, J.**, Lin, B., Cai, H., & Li, W. (2026). Human Circadian Rhythm Through the Lens of GIScience: A Systematic Review. *npj Biological Timing and Sleep*.

- In Review 19. **Abedin, J.**, Zou, L., Dabney, A., Hossain, M.M., Akter, H., Sabrina, S. Air Quality and Human Health in the Shadow of Bangladesh's Growing Brick Industry.
- 2026 18. **Abedin, J.**, Rabby, Y. W., & Fernando, D. (2026). Enhancing the performance of medium-resolution DEM-based landslide susceptibility maps with machine learning algorithms: a case study of Watauga County, North Carolina. *Geoenvironmental Disasters*, 13(1), 59. [\[View Article\]](#)
- 2026 17. Zhou, B., Zou, L., Yang, M., Lin, B., Mandal, D., **Abedin, J.**, Cai, H., Ji S., Klein, A., & Tian, H. (2026). Rapid Disaster Response and Damage Estimation with Social Media and Pretrained Large Language Models: Insights from Multiple Hurricanes. *Annals of the American Association of Geographers*, 116(3), 501-523. [\[View Article\]](#)
- 2025 16. Yang, Y., Zou, L., Zhou, B., Li, D., Lin, B., **Abedin, J.**, Yang, M. (2025). Hyperlocal disaster damage assessment using bi-temporal street-view imagery and pre-trained vision models. *Computers, Environment and Urban Systems*, 121, 102335. [\[View Article\]](#)
- 2024 15. Lin, B., Zou, L., Yang, M., Zhou, B., Mandal, D., **Abedin, J.**, Cai, H., Ning, N. (2024). Progress in understanding human-COVID-19 dynamics using geospatial big data: a systematic review. *Annals of GIS*, 1-21. [\[View Article\]](#)
- 2024 14. Mandal, D., Zou, L., Wilkho, R.S., Baig, F., **Abedin, J.**, Zhou, B., Cai, H., Gharaibeh, N., Lam, N.S.N. (2024). PRIME: A CyberGIS platform for resilience inference measurement and enhancement. *Computers, Environment and Urban Systems*, 114, 102197. [\[View Article\]](#)
- 2024 13. **Abedin, J.**, Zou, L., Yang, M., Rohli, R., Mandal, D., Qiang, Y., Akter, H., Zhou, B., Lin, B., Cai, H. (2024). Deciphering Spatial-Temporal Dynamics of Flood Exposure in the United States. *Sustainable Cities and Society*, 105444. [\[View Article\]](#)
- 2024 12. Zhou, B., Zou, L., Yang, M., Lin, B., Mandal, D., **Abedin, J.** (2024). Overlooked voices under lockdown: Mapping humanitarian needs in 2022 Shanghai COVID-19 outbreak. *Cartography and Geographic Information Science*. [\[View Article\]](#)
- 2023 11. Mandal, D., Zou, L., **Abedin, J.**, Zhou, B., Yang, M., Lin, B., Cai, H. (2023). Algorithmic uncertainties in geolocating social media data for disaster management. *Cartography and Geographic Information Science*. [\[View Article\]](#)
- 2022 10. Lin, B., Zou, L., Duffield, N., Mostafavi, A., Cai, H., Zhou, B., Tao, J., Yang, M., Mandal, D., **Abedin, J.** (2022). Revealing the Global Linguistic and Geographical Disparities of Public Awareness to Covid-19 Outbreak through social media. *International Journal of Digital Earth*, 15(1). 868-889. [\[View Article\]](#)
- 2022 9. Zhou, B., Zou, L., Mostafavi, A., Lin, B., Yang, M., Gharaibeh, N., Cai, H., **Abedin, J.**, & Mandal, D. (2022). VictimFinder: Harvesting rescue requests in disaster response from

social media with BERT. *Computers, Environment and Urban Systems*, 95, 101824. [\[View Article\]](#)

- 2022 8. Yang, M., Zou, L., Cai, H., Qiang, Y., Lin, B., Zhou, B., **Abedin, J.**, Mandal, D. (2022). Spatial–temporal land loss modeling and simulation in a vulnerable coast: A case study in coastal Louisiana. *Remote Sensing*, 14(4), 896. [\[View Article\]](#)
- 2022 7. Rabby, Y. W., Li, Y., **Abedin, J.**, & Sabrina, S. (2022). Impact of land use/land cover change on landslide susceptibility in Rangamati municipality of Rangamati District, Bangladesh. *ISPRS International Journal of Geo-Information*, 11(2), 89. [\[View Article\]](#)
- 2021 6. Rabby, Y. W., Hossain, M. B., & **Abedin, J.** (2021). Landslide susceptibility mapping in three Upazilas of Rangamati hill district Bangladesh: application and comparison of GIS-based machine learning methods. *Geocarto International*, 37(12), 3371-3396. [\[View Article\]](#)
- 2021 5. Billah, M. M., Rahman, M., **Abedin, J.**, & Akter, H. (2021). Land cover change and its impact on human–elephant conflict: A case from Fashiakhali forest reserve in Bangladesh. *SN Applied Sciences*, 3(6), 1-17. [\[View Article\]](#)
- 2020 4. Hassan, M.M., Ash, K., **Abedin, J.**, Paul, B.K., Southworth, J. (2020). A Quantitative Framework for Analyzing Spatial Dynamics of Flood Events: A Case Study of Super Cyclone Amphan. *Remote Sensing*, 12(20): 3454. [\[View Article\]](#)
- 2020 3. **Abedin, J.**, Rabby, Y.W., Hasan, I., Akter, H. (2020). An Investigation of the Characteristics, Causes, and Consequences of June 13, 2017, Landslides in Rangamati District Bangladesh. *Geoenvironmental Disasters*, 7(23): 1-19. [\[View Article\]](#)
- 2019 2. **Abedin, J.**, Khatun, H. (2020). Impacts of Flash Flood on Livelihood and Adaptation Strategies of the Haor Inhabitants: A Study in Tanguar Haor of Sunamganj, Bangladesh. *Dhaka University Journal of Earth and Environmental Sciences*, 8(2019). [\[View Article\]](#)
- 2018 1. **Abedin, J.**, Billah, M. M., Akter, H. (2018). The Socio-economic Status and Land Use Pattern: A Micro-level Analysis in Bangladesh. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 42(3): 185-194.

• Conference Proceedings

- 2023 4. **Abedin, J.** Mapping the geographically and temporally evolved flood risks in the contiguous United States. In *31st International Cartographic Conference 2023*, 6:2. [\[Read\]](#)
- 2023 3. Zou, L., Li, W., Yang, M., Lin, B., **Abedin, J.** The impact of social isolation on sleep disturbances– evidence from geospatial big data during COVID-19. In *31st International Cartographic Conference (ICC 2023)*, 6:293. [\[Read\]](#)

- 2022 2. Zou, L., Zhou, B., Lin, B., Mandal, D., Cai, H., **Abedin, J.** Empowering disaster response with social media & GeoAI: Opportunities & Challenges. *AutoCarto 2022*. [\[Read\]](#)
- 2022 1. Mandal, D., Zou, L., Cai, H., Lin, B., Zhou, B., **Abedin, J.**, Yang, M. Uncertainties in geolocating social media data for disaster management. *AutoCarto 2022*. [\[Read\]](#)

• Book Chapters

- 2024 1. Zou, L., Mostafavi, A., Zhou, B., Lin, B., Mandal, D., Yang, M., Abedin, J., Cai, H. (2024). GeoAI for Disaster Response. In Handbook of Geospatial Artificial Intelligence (pp. 287-304). CRC Press. [\[Read\]](#)

TEACHING EXPERIENCE

• Assistant Professor at Ohio University

Year	Term	Course
2026	Summer	GEOG 1310: Globalization and the Developing World
	Spring	GEOG 1310: Globalization and the Developing World
		GEOG 2680: Introduction to GIS and Mapping Sciences
		GEOG 3600/5600: Principles of Cartography
2025	Fall	GEOG 1310: Globalization and the Developing World
		GEOG 4660/5660: Principles of Remote Sensing

• Teaching Assistant at Texas A&M University (TAMU)

Year	Term	Course
2023	Spring	GEOG 475: Advanced GIS
2022	Fall	GEOG 390: Principles of GIS
	Spring	GEOG 390: Principles of GIS
		GEOG 475: Advanced GIS
2021	Fall	GEOG 477: Terrain Analysis & Mapping/Geomorphometry

• Guest Lecturer

Year	Term	Lecture Title	Course/School
2025	Spring	Physical and Social Vulnerability to Hurricane with Emphasis on Storm Surge	Texas A&M University, Galveston
2024	Spring	Application of GIScience in Climatic & Environmental Hazard Risks Research	GEOG695: Frontiers in GIScience, TAMU
2023	Fall	GIS Data Models – Raster	GEOG390: Principles of GIS, TAMU
2023	Fall	Geodatabase Application in Flood Exposure Analysis	GEOG659: Geodatabases, TAMU

PROJECTS AND PROPOSALS

• PI & Co-PI

- 2027-2030 **PI.** Louisiana Board of Regents, Research Competitiveness Subprogram (RCS), “GeoAI for Dynamic Compound Environmental Hazard and Health Risk in Gulf Coast Communities.” \$154,000 (proposed).
- 2026-2029 **PI/Co-PI.** Office of Global Affairs, Ohio University for an OHIO-Chubu University Faculty Research Collaboration, “AI-based GIS platform for smart and resilient communities.” \$54,000.00
- 2023-2024 **PI.** American Association of Geographers (AAG) Research Grant, “Deciphering Spatial-Temporal Dynamics of Flood Risk in the United States”. PI: **Joynal Abedin**; Advisor-Lei Zou.

• Participation

- 2023-2026 National Academies of Sciences, Engineering, and Medicine (NASEM) Gulf Research Program (GRP), “Climate-LEAD: Climate effects on localized environmental health disparities in overburdened Texas communities along the Gulf Coast.” PI: Lei Zou, \$1,499,990.
My Role: Worked as a Research Assistant; Conducted literature review; Prepared graphs and maps; Conducted preliminary analysis, Generating 2 first-author publications.
- 2023-2026 National Science Foundation (NSF) Human Networks and Data Science (HNDS), “Collaborative Research: HNDS-I: A Cyberinfrastructure for multiscale human dynamics and resilience (HDR) research”. Institutional PI/Co-PI: Lei Zou, PI: Nina Lam, \$1,096,902.
My Role: Worked as a Research Assistant; Conducted literature review; Prepared graphs and maps; Conducted preliminary analysis; Generated 1 first-author publication.
- 2022-2023 AAG Summer Workshop Series, “Spatial data science for social media analytics”, PI: Lei Zou, \$1750.
My Role: Worked as a Research Assistant; Monitored social media; Responded to student’s questions.
- 2023-2024 TAMU National Institute of Health (NIH) via TiGER Pilot Projects Program, “Geospatial modeling of climate change effects on environmental health resilience in southeast Texas communities.” PI: Lei Zou, \$50,000.
My Role: Worked as a Research Assistant; Conducted literature review; Collected data and made maps for reports.

PRESENTATIONS

Notes: Total: 36

- ✓ Invited Talks: 4
- ✓ Conference Presentations: 32

- **Invited Talks**

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| 2026 | 4. | Colloquium speaker, LSU College of the Coast & Environment Seminar (Sep 2026), on 'Advancing Resilient and Equitable Communities through Spatial Data Science and GeoAI'. |
| 2025 | 3. | Colloquium speaker, Geography colloquium series (Nov 2025), Department of Geography at Ohio University on 'Leveraging Spatial Data Science for Resilient and Equitable Societies'. |
| 2024 | 2. | Colloquium speaker, Geography colloquium series, Department of Geography at Texas A&M University on 'Deciphering spatial-temporal dynamics of flood exposure in the United States'. |
| 2023 | 1. | GISalon webinar on "Applying GIS/Cartography/Environment Graduate Programs" hosted by GISphere, 2023. Virtual. [View Video] |

- **Conference Presentations**

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| 2026 | 32. | Abedin, J. , Zou, L., Rohli, R., Yang, Y., Qiang, Y. Rising and Uneven Flood Risk in the Contiguous United States: A 14% Increase Since 2000. <i>AAG 2026 Annual Meeting</i> , San Francisco, CA. |
| 2026 | 31. | Yang, M., Zou, L., Abedin, J. , Li, Z., Zhou, B. The Geography of Human Circadian Rhythms: When and Where Human Sleep Later and More. <i>AAG 2026 Annual Meeting</i> , San Francisco, CA. |
| 2026 | 30. | Abedin, J. Air Quality and Human Health in the Shadow of Bangladesh's Growing Brick Industry. <i>2026 AAAS Annual Meeting</i> , Phoenix, AZ. (Poster) |
| 2025 | 29. | Abedin, J. , Zou, L., Akter, H., Rohli, R., Yang, M. Health Hazards and Air Pollution: The Rise of Brickfields in Bangladesh. <i>AAG 2025 Annual Meeting</i> , Detroit, MI. |
| 2025 | 28. | Abedin, J. Air Quality and Human Health in the Shadow of Bangladesh's Growing Brick Industry. <i>Student Research Week 2025</i> , Texas A&M University, College Station, USA. |
| 2024 | 27. | Abedin, J. Air Pollution and Health Deterioration: The Consequences of Brickfield Expansion in Bangladesh. <i>Texas GIS Day 2024</i> , Texas A&M University, College Station. |
| 2024 | 26. | Abedin, J. , Zou, L., Mandal, D., Yang, M., Akter, H., Zhou, B., Lin, B. Deciphering the dynamics of flood risks: a comprehensive geospatial and temporal assessment in the contiguous United States. <i>AAG 2024 Annual Meeting</i> , Honolulu, HI. |
| 2024 | 25. | Mandal, D., Zou, L., Abedin, J. , Zhou, B., Cai, H., Baig, F. Enhancing disaster resilience in the cyberinfrastructure era: CyberGIS for customizable resilience measurement and improvement. <i>AAG 2024 Annual Meeting</i> , Honolulu, HI. |
| 2024 | 24. | Lin, B., Zou, L., Yang, M., Zhou, B., Mandal, D., Abedin, J. Understanding human-COVID-19 dynamics using Geospatial Big Data: a systematic literature review. <i>AAG 2024 Annual Meeting</i> , Honolulu, HI. |

- 2024 23. **Abedin, J.** Deciphering the Dynamics of Flood Exposure: A Comprehensive Geospatial and Temporal Assessment in the United States. In Student Research Week 2023 at Texas A&M University, College Station, TX. (Poster)
- 2023 22. **Abedin, J.** Mapping the geographically and temporally evolved flood risks in the contiguous United States. *31st International Cartographic Conference (ICC 2023)*, Cape Town, South Africa. [\[Read\]](#)
- 2023 21. Zou, L., Li, W., Yang, M., Lin, B., **Abedin, J.** The impact of social isolation on sleep disturbances – evidence from geospatial big data during COVID-19. *31st International Cartographic Conference (ICC 2023)*, Cape Town, South Africa. [\[Read\]](#)
- 2023 20. **Abedin, J., Zou, L.** Exploring the spatiotemporal trends of flood exposure in the Contiguous United States. *Urban Climate Solutions Workshop*. College Station, TX.
- 2023 19. Zou, L., Zhou, B., Lin, B., Mandal, D., Yang, M., **Abedin, J.**, Cai, H. Smart disaster response with GeoAI and Big Data. *AGU Fall Meeting 2023*. San Francisco, CA.
- 2023 18. **Abedin, J.** Deciphering Spatial-Temporal Dynamics of Flood Exposure in the United States. Texas GIS Day 2023, Texas A&M University, College Station, TX.
- 2023 17. Mandal, D., Zou, L., Wilkho, R.S., **Abedin, J.**, Zhou, B. A CyberGIS platform for resilience inference measurement and enhancement. *AGU Fall Meeting 2023*. San Francisco, CA. (Poster)
- 2023 16. **Abedin, J.**, Zou, L., Cai, H., Yang, M., Akter, H., Mandal, D., Lin, B., Zhou, B. Deciphering spatial-temporal dynamics of flood exposure in the United States. *AAG 2023 Annual Meeting*, Denver, CO. **Jeanne X. Kaspersen Award**.
- 2023 15. Mandal, D., Zou, L., **Abedin, J.**, Yang, M., Zhou, B. Evolving geographical disparities of community disaster resilience in the US. *AAG 2023 Annual Meeting*, Denver, CO.
- 2023 14. Yang, M., Zou, L., **Abedin, J.**, Lin, B., Zhou, B. Simulating coastal land losses and gains using neighborhood effect optimized convolutional neural networks (NeoCNN) and cellular automata. *AAG 2023 Annual Meeting*, Denver, CO.
- 2023 13. Zhou, B., Zou, L., Lin, B., Yang, M., Mandal, D., **Abedin, J.**, Cai, H. Social media reactions reveal spatial and temporal discrepancies during hurricanes. *AAG 2023 Annual Meeting*, Denver, CO.
- 2022 12. **Abedin, J.**, Zou, L., Yang, M., Akter, H., Mandal, D., Lin, B., Zhou, B., Cai, H. Spatial-Temporal Changes of Flood Exposure in the United States. *AGU Fall Meeting 2022*, Chicago, IL. [\[Read\]](#)
- 2022 11. Yang, M., Zou, L., Lin, B., Zhou, B., **Abedin, J.**, Mandal, D. Simulating coastal land losses and gains using neighborhood effect optimized convolutional neural networks (NeoCNN) and cellular automata. *AGU Fall Meeting 2022*, Chicago, IL. (Poster)

- 2022 10. Mandal, D., Zou, L., Lin, B., Yang, M., **Abedin, J.**, Zhou, B. Evolving geographical disparities of community disaster resilience in the United States. *AGU Fall Meeting 2022*, Chicago, IL. (Poster) [\[Read\]](#)
- 2022 9. Zou, L., Zhou, B., Cai, H., Lin, B., Mandal, D., **Abedin, J.**, Yang, M. Empowering smart disaster response with social media and GeoAI. *AGU Fall Meeting 2022*, Chicago, IL. (Poster) [\[Read\]](#)
- 2022 8. Zou, L., Zhou, B., Lin, B., Mandal, D., Cai, H., Yang, M., **Abedin, J.** Empowering disaster response with social media and GeoAI: Opportunities and Challenges. *AutoCarto 2022*, Redlands, CA.
- 2022 7. Mandal, D., Zou, L., Cai, H., Zhou, B., **Abedin, J.**, Yang, M. Uncertainties in geolocating social media data for disaster management. *AutoCarto 2022*, Redlands, CA.
- 2022 6. Brown, T.J., Thompson, C., Zou, L., **Abedin, J.**, Atoba, K. Marginalized natural hazard risk perception in Sarasota County, Florida. *2022 Natural Hazard Center Researchers Meeting*, Virtual.
- 2022 5. **Abedin, J.**, Zou, L., Cai, H., Mandal, D., Lin, B., Yang, M., Zhou, B., Brown, T. Spatial Changes of Exposure to Flood Hazards in Texas, United States. *AAG 2022 Annual Meeting*, Virtual.
- 2022 4. Yang, M., Zou, L., Lin, B., Zhou, B., **Abedin, J.**, Mandal, D. Simulating land loss and land gain by integrating neighborhood effect and deep learning with cellular automata. *AAG 2022 Annual Meeting*, Virtual.
- 2022 3. Lin, B., Zou, L., Cai, H., Zhou, B., Yang, M., Mandal, D., **Abedin, J.** Revealing the linguistic and geographic disparities of public awareness to Covid-19 outbreak through social media. *AAG 2022 Annual Meeting*, Virtual.
- 2022 2. Mandal, D., Zou, L., Cai, H., Lin, B., Zhou, B., Yang, M., **Abedin, J.** A modular machine learning platform for resilience inference measurement and enhancement (PRIME). *AAG 2022 Annual Meeting*, Virtual.
- 2020 1. **Abedin, J.**, Khatun, H. Impacts of Flash Flood on Livelihood and Adaptation Strategies of the Inhabitants of Tanguar Haor, Sunamganj District, Bangladesh. *International Conference on Earth & Environmental Science and Technology 2020 (ICEEST 2020)*, Dhaka, Bangladesh.

STUDENT MENTORSHIP

Committee Member for:

Allan Ouko K'oyoo M.S., Geography (25-26); Ohio University

- **Thesis:** Disaster Risk Governance in Transition: How Governance Responses Shape Flood Risk in Nairobi's Informal Settlements.

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| Md Sabbir Hossain | M.S., Geography (25-26); Ohio University |
| | <ul style="list-style-type: none"> • Thesis: From Pattern to Processes of Adaptation to Climate Induced Hazards: Livelihood Adaptations to Saltwater Intrusion in the Rice Zone of Coastal Bangladesh. |
| Sinthia Silvi | M.S., Geography (25-26); Ohio University |
| | <ul style="list-style-type: none"> • Thesis: Spatiotemporal Modeling of PM_{2.5} in Relation to Urban Growth, Meteorology, and Vegetation Phenology: A Case Study of Columbus, Ohio. |
| Md. Shakib Al Fahad | M.S., Geography (25-26); Ohio University |
| | <ul style="list-style-type: none"> • Capstone Project: Linking Phenology and Climate: How Plants Respond to Temperature Signals. |
| Bimisha Upadhyaya | M.S., Geography (25-26); Ohio University |
| | <ul style="list-style-type: none"> • Capstone Project: Surface Urban Heat Island Impacts and Related Social Vulnerability at the Neighborhood Scale in Franklin County, Ohio (2014-2024). |

PROFESSIONAL AND ACADEMIC SERVICES

• Conference Organizations

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| 2026 | Session Chair/Organizer/Moderator, AAG 2026 (San Francisco , California) |
| | - GISER Symposium: GIScience Advances in Climate Effects on Environmental Health |
| 2025 | Session Chair/Organizer/Moderator, AAG 2025 (Detroit , Michigan) |
| | - GIScience Advances in Climate Change and Environmental Health - I |
| | - GIScience Advances in Climate Change and Environmental Health - II |
| 2024 | Session Chair/Organizer/Moderator, AAG 2024 (Honolulu , Hawai'i) |
| | - Understanding Climate Change Effects on Environmental Health through GIScience: Water Insecurity, Air Pollution, and Health Disparities |
| 2023 | Session Chair/Organizer/Moderator, AAG 2023 (Denver , Colorado) |
| | - Symposium on Human Dynamics Research: Emerging Disaster Vulnerability, Risk, and Resilience Modeling I |
| | - Symposium on Human Dynamics Research: Emerging Disaster Vulnerability, Risk, and Resilience Modeling II |

• Invited Peer Reviews

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| - Physical Geography (3) | - Sustainable Cities and Society (6) |
| - Environmental Earth Sciences (2) | - International Journal of Digital Earth (1) |

• Invited Conference Reviews

- The 29th International Conference on Geoinformatics (2022), Beijing, China (1)

• Others

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| 2025 | Judge, Student Research Week (SRW) 2023 (Poster Sessions) at Texas A&M University. |
| 2023 | Textbook proposal reviewer, Environmental Science at Elsevier. |

2023 Judge, Student Research Week (SRW) 2023 at Texas A&M University.

PROFESSIONAL SOCIETIES

2024 - Present	American Association for the Advancement of Science (AAAS)
2021 - Present	American Association of Geographers (AAG)
2021 - Present	University Consortium of Geographic Information Science (UCGIS)
2023 – 2024	International Cartographic Association (ICA)
2022 - 2023	American Geophysical Union (AGU)