

# S M Asger Ali, Ph.D.

5821 Shadowview Way, Apt E, Indianapolis, IN 46241 · (405) 719-3666

Email: [sa48@iu.edu](mailto:sa48@iu.edu) Email: [asgeraliraju20@gmail.com](mailto:asgeraliraju20@gmail.com) · <https://www.linkedin.com/in/asger-ali>

## SUMMARY

Dr. S M Asger Ali is a distinguished professional in the realm of Geographic Information Systems (GIS), currently holding the position of GIS Analyst at the Polis Center at Indiana University Purdue University Indianapolis (IUPUI). His distinguished expertise is underpinned by a notable academic journey that commenced with a doctoral degree in Earth and Atmospheric Sciences from Mississippi State University and a Master of Science degree in Sociology from Oklahoma State University. With an academic trajectory marked by excellence, Asger brings over seven years of research and teaching experience. His objectives encompass the extension of geospatial modeling, social determinants of health, vulnerability assessment, population health research, big data analytics, and the creation of web-based interactive dashboards.

## SKILLS

- GIS Modeling
- Statistical Analysis
- Hazus and FME
- Programming Languages: Python, R and SQL
- Qualitative Data Analysis Software (i.e., NVivo)
- Data Visualization (i.e., WordPress, Flourish, AGOL, ArcGIS Dashboards and Experience Builder)
- Longitudinal Data Analysis
- Remote Sensing
- Scientific Report Writing

## PROFESSIONAL AND RESEARCH EXPERIENCE

### January 2023- Current

**Geographic Information Systems (GIS) Analyst**, Polis Center, Indiana University Purdue University Indianapolis (IUPUI).

- Supports spatial analysis, mapping, risk assessment, and impact studies for public health, natural and other disasters with a major focus on crisis and health informatics initiatives.
- Performs complex data collection, data analysis, data management, literature research, technical writing, and reporting in support of research project(s); performs quantitative and qualitative data collection and analysis.
- Responds to requests for GIS information; designs and creates complex custom reports, maps and other electronic information using GIS systems; communicates regularly with internal and external stakeholders to exchange data, resolve questions, and share information as needed.

### Notable Projects:

- State of Aging in Central Indiana (<https://centralindiana.stateofaging.org/report-data/>). Lead the chapter updates for Demography (<https://centralindiana.stateofaging.org/report-data/demographics-2/>), Housing (<https://centralindiana.stateofaging.org/housing-2023/>) and Health Outcomes (<https://centralindiana.stateofaging.org/health-outcomes/>)
- Indiana Evictions and Foreclosure Dashboard, contributed to the dashboard development and data formatting (<https://storymaps.arcgis.com/stories/8df4666306454635bd5f9fe5b2f34cf1>)
- Encyclopedia of Indianapolis (<https://indyencyclopedia.org/>). Lead two Atlas: Religion (<https://storymaps.arcgis.com/stories/015c5ceb434043938633119ae5b5455f>) and Arts and Culture (Coming Soon).
- Indiana Data Harvest Program (<https://data-harvest-ingov.hub.arcgis.com/>), State of Indiana and County Multihazard Mitigation Planning (<https://polis.iupui.edu/collaborations/resiliency/multi->

hazard-mitigation-planning/) and FEMA's Risk Mapping, Assessment, and Planning (Risk MAP) (<https://storymaps.arcgis.com/stories/a35788f10a324423b06b4a6a8446d8f2>)

- Greenspace Assessment for Marion County ([https://www.savi.org/feature\\_report/greenspace-assessment-for-marion-county/](https://www.savi.org/feature_report/greenspace-assessment-for-marion-county/))

#### **August 2019- December 2022**

**Graduate Research/Teaching Assistant**, Mississippi State University, Starkville, MS.

- Designed and taught two-course sessions about Introduction to Geography classes for first-year college students using multiple technologies.
- Study geographical content and examine the difference used in tornado warning communication between urban and rural areas.

#### **August 2017 – May 2019**

**Graduate Teaching Assistant**, Oklahoma State University, Stillwater, OK.

- Teaching assistant for Theoretical Thinking in Sociology and Introduction to Sociology (Fall 2017 and 2018; Spring 2018) and Juvenile Delinquency and Culture, Religion, and Society (Fall 2018 and Spring 2018) courses.
- Assist lead professor in delivering classes that focus on the applied and theoretical perspective of sociology, graded exams, assignments, and projects of 300+ students with critique and helpful tips to write an academic paper.

#### **January 2017 – June 2017**

**Research Assistant**, Project: Poverty Alleviation through Prevention and Control of the Two Major Socio-Economically Important Pathogens in Asian Aquaculture (India and Bangladesh).

- Study Statistical data in the area of concentration like poverty, aquaculture, or agriculture.
- Device technique and method for shaping, gathering, and processing data, developing knowledge of the available source of data and sampling techniques.

## **EDUCATION**

#### **August 2019 – December 2022**

**Doctor of Philosophy in Earth and Atmospheric Sciences**, Mississippi State University, Starkville, MS.

**Relevant courses:** Advanced GIS, GIS Programming, Physical Environment and Remote Sensing, Advanced Hazard and Disaster, Quantitative Analysis in Climatology and Urban Environments.

**Dissertation Topic:** A multi-method Exploration of Health Disparities and COVID-19 Incidence and Mortality in the United States.

**Access Link:** <https://scholarsjunction.msstate.edu/cgi/viewcontent.cgi?article=6657&context=td>

#### **August 2017 – May 2019**

**Master of Science in Sociology**, Oklahoma State University, Stillwater, OK.

**Relevant courses:** Classical Sociological Theory, Social Research Design, Qualitative Research Methods, Quantitative Analysis of Social Research, Social Inequality and Stratification and Sociology of Disaster.

**MS Thesis:** Print media coverage of Hurricane Harvey: A content analysis of the Houston Chronicle, the New York Times and the Wall Street Journal from 2017 to 2018

**Access Link:** <https://shareok.org/handle/11244/338877>

March 2010 – October 2014

**Bachelor of Science in Urban and Rural Planning**, Khulna University, Khulna, Bangladesh.

**Thesis:** Regeneration Guidelines for the Neighborhood located in Residential Sites of Khulna City, Bangladesh.

**Relevant courses:** Natural Resource Management, Environmental Management, Disaster Studies, Project Planning & Evaluation Techniques, Statistics for Planners, Remote Sensing & Aerial Photo Interpretation.

## Published Manuscripts, Reports, and Book Chapters

- **Ali, S. A.**, and Sherman-Morris, K. (2024). An Exploratory Content Analysis of Two Local Television Broadcasters' Tornado Warning Communication, *Weather, Climate, and Society* (Forthcoming, waiting for online release).
- **Ali, S. A.**, and Ruma, A., (2024). "Rana Plaza Collapse—Bangladesh: A Social Science Perspective." In The Encyclopedia of Technological Hazards and Disasters in the Social Sciences, edited by D.A. Gill, L.A. Ritchie, and N. Campbell. London: Edward Elgar. (Forthcoming, waiting for online release)
- **Ali, S. A.**, Sherman-Morris, K., Meng, Q., & Ambinakudige, S. (2023). Longitudinal disparities in social determinants of health and COVID-19 incidence and mortality in the United States from the three largest waves of the pandemic. *Spatial and Spatio-temporal Epidemiology*, 46(C), 100604.
- **Ali, S. A.**, & Sherman-Morris, K. (2023). Pandemic and health reporting: A content analysis of New York times coverage of COVID-19 from January 01, 2020, to August 31, 2022. *Social Sciences & Humanities Open*, 8(1), 100739. <https://doi.org/10.1016/j.ssaho.2023.100739>
- **Ali, S. A.**, Sherman-Morris, K., and Shrinidhi, A. (2022). Spatial exploration of Social Vulnerability and COVID-19 related health outcomes in Mississippi. *Southeastern Geographer*, 62(3), 176-193.
- **Ali, S. A.**, and Gill, D. A. (2022). Media Framing and Agenda-Setting (tone) in News Coverage of Hurricane Harvey: A Content Analysis of the New York Times, Wall Street Journal, and Houston Chronicle from 2017 to 2018. *Weather, Climate, and Society*, 14(2), 637-649, doi: 10.1175/WCAS-D-21-0009.1
- Ahasan, R., Alam, M. S., Chakraborty, T., **Ali, S. A.**, Alam, T. B., Islam, T., & Hossain, M. M. (2022). Applications of geospatial analyses in health research among homeless people: A systematic scoping review of available evidence. *Health Policy and Technology*, 11(3), doi: 10.1016/j.hlpt.2022.100647
- Dietrich, M., Lafever, D., **Ali, S. A.**, and Olson, A., (2023). Greenspace Assessment for Marion County, *SAVI Article*, ([https://www.savi.org/feature\\_report/greenspace-assessment-for-marion-county/](https://www.savi.org/feature_report/greenspace-assessment-for-marion-county/))
- Ruma, A., Dixon, M., Sweeney, M., and **Ali, A.** (2024) Post-flood Geomorphic and Vegetative Dynamics on "set-aside" Sandbars on the Missouri River. (Manuscript under preparation).

## JOURNAL REVIEWING CONTRIBUTIONS

- Preventing Chronic Disease (<https://www.cdc.gov/pcd/index.htm>)
- Applied Geography (<https://www.sciencedirect.com/journal/applied-geography>)
- PLoS Global Public Health (<https://journals.plos.org/globalpublichealth/>)

## **MEDIA COVERAGE, AWARDS & FELLOWSHIPS**

- December 07, 2023, "Indiana researchers unveil first-of-its-kind statewide evictions, foreclosure dashboard" (<https://www.wfyi.org/news/articles/indiana-researchers-unveil-first-of-its-kind-statewide-evictions-foreclosure-dashboard>)
- June 01, 2023, "Greenspace Assessment of Marion County" was highlighted on the Front Page of the Indianapolis (<https://www.indystar.com/story/news/local/indianapolis/2023/06/01/indy-parks-equity-efforts-iupui-report-greenspace-need-racism/70270454007/>)
- June 2022 Graduate Student Spotlight, Mississippi State University.  
**Media Coverage:** [https://issuu.com/gradmarketing/docs/newsletter\\_june/4](https://issuu.com/gradmarketing/docs/newsletter_june/4)
- September 30, 2021, "A Comparative Content Analysis of Local Television" was highlighted on the NGI Summer 2021 Portal Newsletter (<https://www.northerngulfinstitute.org/portal/view.php?s=180>)
- First prize in 86th Mississippi Academy of Science (MAS) conference, March 31-April 1, 2022, Biloxi, Mississippi (Category: Oral Presentation, Division: Geology and Geography).
- First prize in Mississippi State Fall 2020, Spring 2021, Fall 2021 and Spring 2022 Graduate Student Research Symposium (Category: Poster, Division: Education, Arts and Sciences, and Business - PhD),  
**Media Coverage:** <https://www.msstate.edu/newsroom/article/2022/03/2022-graduate-research-symposium-winners-announced-msu>
- University Merit Scholarship, Khulna University.
- Presidential Graduate Initiative Fellowship, Mississippi State University, MS.

## **POSTER PRESENTATION, CONFERENCE, ONLINE AND WORKSHOP**

- 2023 Indiana GIS Conference, May 10-12, Evansville, IN (<https://www.igic.org/2023-gis-conference>)
- 2022 Mississippi Academy of Science (MAS) Conference, March 31-April 1, Biloxi, Mississippi, USA
- 38th Southern Biomedical Engineering Conference 2022, August 25-28, 2022, New Orleans, LA, USA.
- Ali, A., and Gill, G. (2020). Content Analysis of Media Framing and Agenda Setting of Hurricane Harvey's News Coverage. Poster presented at 45th Annual Natural Hazards and Application Workshop, July 12-15, 2020, Colorado, USA. (Natural Hazards Center | | Workshop Abstracts ([colorado.edu](https://colorado.edu))).  
Abstract Access link: <https://hazards.colorado.edu/workshop/2020/abstract/poster-session#conte...>  
**Poster Link:** [https://pheedloop.s3.amazonaws.com/media/events/EVEZAFPOPSQQQ/files/313580\\_Poster\\_Asger\\_NHW\\_2020\\_12-13July.pdf](https://pheedloop.s3.amazonaws.com/media/events/EVEZAFPOPSQQQ/files/313580_Poster_Asger_NHW_2020_12-13July.pdf)
- Display and Analyze GIS data on the Web with Leaflet, an online non-credit course offered through Udemy.
- Text Mining and Natural Language Processing in R, an online non-credit course offered through Udemy.
- Learning Python for Data Analysis and Visualization, an online non-credit course offered through Udemy.

## **MEMBER**

- 2023-Present, Urban and Regional Information Systems Association (URISA)
- 2023-Present, Indiana Geographic Information Society (IGIC)
- 2019-Present, American Association of Geographers
- 2021-Present, American Meteorological Society
- 2022-Present, Mississippi Academy of Science (MAS)
- 2020-Present, Honor Society.
- February 2020-Present, The Society for Collegiate Leadership & Achievement.
- August 2018 – May 2019, Graduate Student Representative, Graduate and Professional Student Government Association, Oklahoma State University, Stillwater, USA.