

FATEMA TUZ JOHRA NOURIN

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EDUCATION

The University of Alabama, Tuscaloosa, AL

PhD Expected December 2026

Geography

GPA: 3.77

Iowa State University, Ames, IA

Ma December 2022

Community and Regional Planning

GPA: 3.74

University of Wyoming, Laramie, WY

Ma August 2019

Geography

GPA: 3.87

Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

Bachelor of Urban and Regional Planning, (Buet), GPA: 3.47 September 2015

GPA: 3.47

TECHNICAL SKILLS

- GIS & Remote Sensing: ArcGIS Pro, ArcGIS Online, QGIS, Google Earth Engine, ENVI
- Programming: Python (NumPy, ArcPy, pandas, rasterio, geopandas, matplotlib), R, SQL
- Data Management & Visualization: PostgreSQL/PostGIS, Tableau, ArcGIS StoryMaps
- Other Tools: AutoCAD, Microsoft Project

EXPERIENCE

Graduate Teaching Assistant

January 2024 - Present

University of Alabama, Tuscaloosa, AL

- Demonstrated atmospheric lab techniques, provided hands-on support with instruments and software, and graded assignments promptly for 90+ students per semester.

Graduate Research Assistant

January 2023 - December 2023

University of Alabama, Tuscaloosa, AL

- Analyzed 25 years of Landsat satellite imagery in Google Earth Engine to quantify shoreline change in Mobile Bay, generating spatial datasets to inform coastal resilience planning.
- Facilitated CIROH workshops with 50+ stakeholders, designing interactive activities and spatial mapping exercises to support decision-making on coastal resilience.
- Designed and deployed an web app featuring about 200 food assistance locations across Alabama; enabled residents to search by address to find nearby services, improving access for underserved communities.

Graduate Teaching Assistant

August 2020 - August 2022

Iowa State University, Ames, IA

- Taught Fundamentals of GIS and GIS Programming & Automation (30-60 students).
- Mentored student projects using ArcGIS Online, Survey123, StoryMaps, and Python.

Gis Technician

June 2021 - August 2022

GIS Facility, Iowa State University, Ames, IA

- Deployed Iowa's Historical Topographic Map Service by creating a reusable ArcGIS workflow, processing, and publishing time-enabled web layers spanning 1920–2021.
- Processed LiDAR data for three Iowa Counties and georeferenced historic DOT maps into time-enabled interactive web layers.

- Delineated crop boundaries of 99 Iowa counties for ACPF project to manage statewide conservation planning.

Gis Intern

June 2021 - August 2021

unevictIA, Ames, IA

- Created the first eviction record maps for selected 22 Iowa counties and developed an interactive R Shiny dashboard to visualize housing trends and support housing justice initiatives.

Graduate Teaching Assistant

August 2017 - May 2019

University of Wyoming, Laramie, WY

- Led the labs of Intro to GIS and Advanced GIS courses and assisted students with vector/raster analysis, georeferencing, and geospatial modeling, along with grading.

Research Associate

May 2016 - June 2017

Institute of Water and Flood Management, Dhaka, Bangladesh

- Analyzed multi-temporal satellite imagery in QGIS from 1995 to 2005 to quantify land use changes for the University of Oxford REACH project, measuring urban expansion and assessing impacts on water access to inform urban water access.

SELECTED PUBLICATIONS & RESEARCH

- Nourin, F. T. J., Cass, E., & Shao, W. (in prep.). How do coastal residents prepare for hurricanes in pre-hurricane season? University of Alabama.
- Nourin, F. T. J., & Shao, W. (in prep.). Shoreline change analysis of Mobile Bay, Alabama. University of Alabama.
- Nourin, F. T. J., Haque, M. M., & Shao, W. (in prep.). Shifts in stakeholder perception through knowledge co-production in Mobile Bay. University of Alabama.
- Mahmood, S., Nourin, F. T. J., Siddika, A., & Khan, T. F. (2017). Encroachment of the Buriganga River in Bangladesh. *Journal of Minerals and Materials Characterization and Engineering*, 5(05), 266.

HONORS & AWARDS

- Burgess Graduate Scholarship, Iowa State University, 2022
- Outstanding Graduate Student, University of Wyoming, 2019
- Inducted into Gamma Theta Upsilon (Geography Honor Society), 2019
- Bangladesh Government Scholarship for Technical Education, 2010
- International Student Scholarship, University of Wyoming, 2018-2019
- Graduate Student Travel Award, University of Wyoming, 2019