

RESHMA AFROZ RIMI

[Portfolio](#)

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Career Objective: Motivated and detail-oriented urban planning professional with two years of experience as a Junior Urban Planner, Assistant GIS Specialist, and Graduate Research Assistant. Adept in spatial analysis, geospatial technologies, and sustainable development strategies. Eager to contribute to innovative planning initiatives and support data-driven decision-making in a dynamic, multicultural environment. Committed to continuous learning and capable of adapting to new challenges, collaborating across disciplines, and enhancing existing urban strategies to promote inclusive, resilient communities.

Education

Master's in Urban and Regional Planning Alabama A & M University, USA	CGPA: 4.00/4.00 Fall 2024 - Current
Master's in Urban and Regional Planning Jahangirnagar University, Savar, Dhaka-1342, Bangladesh	CGPA: 3.64/4.00 May 2022 - April 2023
Bachelor in Urban and Regional Planning Jahangirnagar University, Savar, Dhaka-1342, Bangladesh	CGPA: 3.73/4.00 March 2017 - May 2022

Research and Publications

Journal Article

Morshed SR, **Rimi RA**. (April 2025). [Dynamics of Urban Consumption and Resulting Impacts on Ecological Footprint: A Longitudinal Study of Khulna, Bangladesh](#). 18, Energy Nexus

Fattah MA, **Rimi RA**, Morshed SR. (May 2022). [Knowledge, behavior, and drivers of residents' willingness to pay for a sustainable solid waste collection and management system in Mymensingh City, Bangladesh](#). Journal of Material Cycles and Waste Management

Poster Presentation

Rimi RA. (April 2025). [Strategic Land Use and Zoning Proposals for North-West Huntsville: A BIG Picture Alignment](#).

Rimi RA. (Nov 2024). [GIS-Based Clustering Technique for Identifying Tourism Hotspots in Huntsville, Alabama](#)

Conference Paper

Rimi RA, (October 2025). Social Walkability Assessment with Computer Vision, APA Conference-2025 (Alabama-chapter)

Rimi RA, Rafi AH, Sultana J. (Feb 2024). [Factors affecting sustainable resource management in Bangladesh](#). ICCESD-24

Technical Skills

Programming Language	Python, R, HTML5, CSS3, Bootstrap4, JavaScript,
Data Analysis and Statistical Tools	SPSS, STATA, Excel (Advanced Functions, Pivot Tables, Data Visualization)
GIS & Remote Sensing Tools	ArcGIS Pro, ArcMap, Arcpy, QGIS, SuperMap, Google Earth Engine (GEE), Python Geospatial Library
Design & Modeling Software	You Only Look Once (Object Detection Model), SketchUp, AutoCAD, Adobe Illustrator
Web & Content Management	WordPress (CMS), Basic Web Development (HTML/CSS/JS)
Productivity Tools	Microsoft Office Suite (Word, Excel, PowerPoint-Advanced), Google Workspace

Thesis

2nd MURP Thesis (Ongoing, proposal phase) **A Composite Walkability for Social Locations Using Computer Vision Model: Google Street View Based Case Study of Huntsville, Alabama**

Major Focus:

- Developed a composite walkability score method by integrating Google Street View imagery, Sentinel-2

NDVI, and parcel-level land use data.

- Applied YOLO-based computer vision and Principal Component Analysis (PCA) to extract and weight key walkability variables
- Identified the influence of infrastructure, vegetation, and land use diversity on pedestrian accessibility at social locations.
- Generated actionable insights to guide urban planners in improving walkability in underserved but socially active areas.

1st MURP Thesis Spatiotemporal Variability of Climatic Factors in Response to Vegetation Cover Change in Bangladesh (2023)

Major Focus:

- Analyzed long-term (1981–2022) spatiotemporal trends of temperature and precipitation across Bangladesh using Mann-Kendall and Sen’s Slope tests.
- Assessed climate–vegetation interactions by linking NDVI variability with climatic factors through regression modeling.
- Google Earth Engine (GEE) for satellite image processing, NDVI computation, and large-scale temporal analysis.
- Provided insights into regional climate–vegetation dynamics with implications for environmental planning and climate adaptation.

BURP Thesis Walkability Analysis on Selected Roads of Ward No. 26 And 28 In Gazipur City Corporation (2022)

Major Focus:

- Assessed urban walkability through survey data and GIS-based spatial analysis.
- Identified socio-economic, cultural, and safety factors shaping pedestrian behavior.
- Analyzed the influence of land use density on walkability using spatial modeling.
- Measured willingness to pay (WTP) for safer pedestrian infrastructure.
- Found reluctance to walk driven by environmental hazards, socio-cultural barriers, and inadequate facilities.

Professional Experience

1. Graduate Research Assistant (Aug 15th, 2024 - Current)

Department of Community and Regional Planning, Alabama A & M University, Normal, Alabama, Huntsville

Key Responsibility:

- Developed Python scripts to collect and manage large-scale social media–based spatial datasets, integrating with Excel tracking systems.
- Processed and analyzed temporal and geospatial data for mapping and visualization in ArcGIS.
- Computational analysis and literature reviews are conducted to extract patterns and guide research.
- Supported curriculum delivery through student mentoring and course coordination.

2. Assistant GIS Specialist (Aug 1st, 2023 – Jul 10th, 2024)

Desh Upodesh Limited, House #21/B, Road #16 (New)/27(old) Dhanmondi, Dhaka-1209, Bangladesh.

Project Name: Mouza and Plot Based National Digital Land Zoning Project

Key Responsibility:

- Ensured quality control of spatial Mouza datasets, maintaining topological accuracy and cadastral standards.
- Automated bulk dataset management in ArcGIS with custom Python tools and scripts, improving workflow efficiency.
- Georeferenced raster maps and historical land records for integration into modern GIS frameworks.
- Trained in Real-Time Kinematic (RTK) systems for high-precision geospatial data collection and field surveys.

3. Junior Urban Planner (Feb 15th, 2023 – Jun 30th, 2023)

Development Design Consultants Ltd. (Joint Venture), DDC center, 47-Mohakhali c/a, Dhaka-1212, Bangladesh

(i) Project Name: Integrated City Master Plan for Dhaka (2020 - 2050)

Key Responsibility:

- a) Conducted site and spatial analyses using GIS, field surveys, and national datasets to support sustainable urban planning, infrastructure design, and multimodal connectivity.
- b) Developed comprehensive Ward Action Plans and reports addressing transportation networks, utilities, waste management, terrain analysis, and heritage preservation.
- c) Produced data-driven, map-supported recommendations that informed efficient road network design, recreational space planning, and urban livability improvements.

(ii) Project Name: Mouza and Plot Based National Digital Land Zoning Project**Key Responsibility:**

- a) Digitized Mouza maps with high precision using GIS software, ensuring accurate spatial representation of cadastral boundaries and land parcels.
- b) Managed and updated attribute tables to maintain consistency and integrity of geospatial datasets.
- c) Prepared detailed reports documenting digitization processes, data management methodologies, and spatial analysis outcomes.

Professional Affiliation

Student Member, ID #429443, American Planning Association

Associate Member, ID#2089, Bangladesh Institute of Planners

Awards, Grants and Scholarships

1. APA (American Planning Association) Foundation Diversity Scholarship (\$5000.00)
2. CALNS Week Student Research Showcase Award for the proposal of “A Composite Walkability for Social Locations Using Computer Vision Model: Google Street View Based Case Study of Huntsville, Alabama”
3. Black gala Tie Scholarship (\$2000.00)
4. Research Grant from The Ministry of Disaster Management and Relief for MURP thesis on “Spatiotemporal Variability of Climatic Factors in Response to Vegetation Cover Change in Bangladesh.” (50,000.00 BDT)
5. Government General Scholarship for extraordinary results in BURP (6300.00 BDT)
6. Complementary Scholarships for excellent results both in BURP and MURP (24,500.00 BDT)

Extra Curriculum Activities

1. Freelancing (Period: March 2022 - October 2022)
2. Executive Member of Club - “Youth Engagement for Sustainability, Bangladesh (YES-BD)” Jahangirnagar University (Duration: May 2019 - December 2021).
3. Inter University Innovative Idea Contest - 2018 (Team Leader)

References**Dr. Florina Dutt**

Assistant Professor; Academic and Thesis Supervisor
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Dr. Himanshu Grover

Associate Professor and Department Chair
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Dr. Ahmed Ouf

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