

# MD. FARHAN RAFIQ

Naogaon, Bangladesh

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## EDUCATION

### Bachelor of Science in Oceanography

Jan 2019 - Jan 2024

Shahjalal University of Science and Technology, Sylhet-3114, Bangladesh

CGPA: 3.66 out of 4.00

#### Relevant Coursework:

- GIS Technology
- Ocean Modelling
- Remote Sensing and Satellite Oceanography
- Meteorology and Ocean Forecasting
- Blue Economy and Sustainable Development
- Port and Shipping Management

## RESEARCH INTEREST

- Geographic Information System (GIS)
- Remote sensing
- Oceanographic data science
- Geospatial AI and predictive modeling
- Climate change and environmental monitoring

## RESEARCH EXPERIENCE

### Spatial and Temporal Variability of PAR, Kd<sub>490</sub> and SST in the Bangladesh Exclusive Economic Zone (2016-2022)

Undergraduate Project

Dec 2023

- Analyzed PAR, Kd<sub>490</sub> and SST to identify spatial and temporal changes.
- Investigated marine productivity by visualizing PAR, Kd<sub>490</sub> and SST trends.

### Quantitative Analysis of Annual Chlorophyll-a and Sea Surface Temperature Fluctuations in the Bay of Bengal Using Remote Sensing Data

Academic Project

Jun 2023

- Applied satellite data to analyze seasonal trends in Chlorophyll-a and SST in the Bay of Bengal.
- Created detailed geospatial visualizations using SNAP and ArcMap.

## SKILLS

### GIS and Remote Sensing Tools

- ArcGIS:** Spatial analysis, geoprocessing, cartography
- SeaDAS/SNAP, ODV:** Ocean color data preprocessing, image classification
- Google Earth Engine:** Satellite data processing, time-series analysis

### Programming and Data Analysis

- Python:** Pandas, NumPy, Matplotlib, scikit-learn, Seaborn
- R:** Geospatial analysis, visualization
- Microsoft Excel:** Advanced functions, PivotTables, dashboards

### Oceanographic Tools

- Mini CTD, Plankton Net, Grab Sampler, Water Multi-parameter, Algal Torch

## INTERNSHIP

### Marine Phytoplankton Study in the Bay of Bengal

Bangladesh Fisheries Research Institute (BFRI), Cox's Bazar, Bangladesh

Mar 2025

- Conducted phytoplankton culture, growth monitoring, and microscopic identification.
- Performed field sampling, specimen preservation, and isolation techniques.

## INVOLVEMENT

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### Volunteer

#### International Symposium on Marine Resource Management

Mar 2023

Shahjalal University of Science and Technology, Sylhet-3114, Bangladesh

- Assisted with event logistics and participant coordination.
- Supported the smooth execution of symposium activities.

## CERTIFICATIONS

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### Going Places with Spatial Analysis

Mar 2025

MOOC - ESRI

- Analyzed spatial data to identify patterns and relationships in location-based data.
- Utilized methodologies to determine optimal locations and paths to make spatial predictions.

### Spatial Analysis and Satellite Imagery in GIS

Nov 2023

University of Toronto - Coursera

- Filtered datasets and conducted spatial relationship analysis.
- Utilized remote sensing data and analyzed raster data.

### Cartography

Mar 2022

MOOC - ESRI

- Utilized advanced techniques in map design and data visualization.
- Gained proficiency in utilizing GIS software for effective cartographic representation.

## LANGUAGES

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- Bengali (Native)
- English

## REFERENCES

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### Dr. Subrata Sarker

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