

Resume of Sunbeam Rahman

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Portfolio : <https://rahmansunbeam.github.io>

Education

- **Master of Geographic Information Systems (MGIS)**, Department of Geography, University of Calgary, 2500 University Drive NW, Calgary, AB, Canada, Sept 2023 to Apr 2025
- Master of Science in Geography and Environment, Department of Geography and Environment, University of Dhaka, Dhaka, Bangladesh, 2009
- Bachelor of Science in Geography and Environment, from the Department of Geography and Environment, University of Dhaka, Dhaka, Bangladesh, 2008

Employment history

- Cryosphere-Climate Research Group, Department of Geography, **University of Calgary** as **Research Assistant**, from Feb 2025 until today
- Simpson Centre, School of Public Policy, **University of Calgary**, as **Graduate Assistant (Research)**, from June 2024 to Sept 2024
- Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES), Dhaka as **GIS Specialist – Bangladesh**, from Jan 2023 to Aug 2023
- Local Government Engineering Department, Dhaka as **GIS Analyst**, from Jan 2021 to Dec 2022.
- Advanced Chemical Industries (ACI), Dhaka, as **Manager - GIS and Remote Sensing**, from Sept 2017 to Apr 2020
- Bangladesh Center for Advanced Studies (BCAS), Dhaka, as **Research Officer** at GIS, RS and Modelling Division, from Jan 2012 to Sept 2017

Professional certification

- **Certified Associate In Project Management (CAPM®)** by Project Management Institute, Jul 2025, Certificate # 4163967, [Credly URL](#)

Few key projects and accomplishments

Employer: Department of Geography, University of Calgary, Canada

Key accomplishments:

I work at the Cryosphere-Climate Research Group in the Department of Geography, a research lab focusing on permafrost, sea ice, glaciology, and climate change. Currently, I'm expanding my MGIS Capstone project paper on Arctic Amplification and Chinook wind dynamics in Southeastern Alberta. I am processing hourly ERA5-Land data of approximately 20 million square kilometers of North America (since 1950) to generate the climate scenarios and pattern maps.

Technologies used: ArcGIS Pro, Python (XArray, ArcPY), Meteorological data management

Project: Climate Adaptation and Resilience for South Asia (CARE)

Employer: Regional Integrated Multi-Hazard Early Warning System (RIMES), Dhaka

Key accomplishments:

This role focused on **developing and optimizing** a geospatial database for weather, climate, and sector-specific data, employing CMIP6 data for various spatial analyses and Python scripting. It produced over 10 historical climate scenarios for Bangladesh (yearly, decadal, etc.) for over 8 climate parameters to support the development of a comprehensive Decision Support System. Additionally, adept at developing climate trends and impact scenarios for extreme weather events on the livestock sector, covering 4 species and 3 commodities, while also proficient in gathering, cleaning, managing, and ingesting complex data for comprehensive sector-specific analyses.

Technologies used: ArcGIS Pro, Python (XArray, ArcPY), Docker, SQL

Project: Intelligent Decision Support System (IDSS) for Farmers

Employer: Advanced Chemical Industries (ACI) Ltd, Dhaka

Key accomplishments:

Led management of **ArcGIS Enterprise**, EGDB, and ArcGIS Portal to develop spatial data API endpoints using Python. Supervised a team of 3 in creating a national six-day interval REST API for rice paddy growth stages from Sentinel-1 data. Coordinated with external partners, managed 20+ hours of training, and supported the development of an Android app ('Fosholi', currently non-functional) for farmer emergency response. Also helped Directing integration of 12,000+ Survey123 training data points and field team coordination. Received the 2018 'GIS Impact Award' from Esri South Asia in recognition of my efforts.

Technologies used: ArcGIS Enterprise, ArcGIS Pro, Python, ENVI, eCognition, SQL

Language proficiencies

- English: Professional working proficiency
- Bangla: Native user
- French: Conversational (Diplôme d'Études en Langue Française, DELF B1 certified)