ASHOK GHIMIRE

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PROFILE

An independent, hardworking, and ambitious person ready to utilize skills and is passionate to work for further enhancement. Creative and driven undergraduate student with practiced communication skills. Reliable to deadlines and dedicated to following instructions. Bringing forth a positive attitude and the willingness & motivation to learn new programs.

ACADEMIC BACKGROUND

High School *(2018)*
NIC Secondary School, *CGPA: 3.09 or equivalent*

Bachelor of Science in Meteorology *(2024)*
Meteorology (Major), Physics, Mathematics
Tri-Chandra Multiple Campus, *GPA: 69.40% or equivalent*

WORK EXPERIENCE

The Small Earth Nepal (SEN) | *Position: Research Assistant (April 2025-Present)*

- Maintained and organized climate and hydrological data systematically, ensuring systematic database management
- Enhancing Climate Resilience in South Asia and China: Predicting Precipitation Shifts and Their Impacts for Disaster Risk Reduction and Resource Security
  - Analyzed precipitation, temperature, and related climate variables using Python and reanalysis as well as other gridded datasets (ERA5, APHRODITE, etc.) to assess climate variability and trends.
  - Designed and delivered online training sessions on climate data analysis techniques for international research assistants and collaborators, strengthening capacity in climate research.
- Promoting Climate Resilient and Socially Inclusive Water Management in the Lower Karnali Watershed Region, Nepal (CLASSIK)
  - Led hands-on climate data analysis training for early-career researchers and graduate students in Kathmandu and Surkhet, building local capacity to understand and manage climate impacts on water resources.
  - Demonstrated practical data analysis workflows using Python and real-world climate datasets (ERA5, APHRODITE, APN Ali, WFDE5), enabling participants to apply techniques directly to watershed and hydrological studies.
  - Supported participants in interpreting climate trends and variability, strengthening their ability to make their contribution to research community and water management.
- Overcoming Barriers and Enhancing Adoption of Solar Lift Irrigation in Nepal
  - Conducted field-based Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) with community members and local representatives in Dhading and Ramechhap districts to understand challenges and opportunities for adopting solar lift irrigation.
  - Collected and analyzed qualitative data to identify social, technical, and institutional barriers, providing actionable insights to promote sustainable irrigation solutions.
  - Supported efforts to enhance community engagement and awareness around renewable energy-based water management, contributing to more resilient agricultural practices.
- SWOT Prior Estimates of Nepal-India Transboundary River Discharge (Phase II)
  - Conducted river discharge measurements for seven major rivers from eastern to western Nepal using ADCP, with GNSS and depth sounder for accurate location and depth recordings.
  - Performed detailed analysis of depth data using Python, enabling precise understanding of river cross-sections and flow characteristics.

- Led and mentored field teams, enhancing their skills in advanced river measurement techniques and safe field operations.

- Faces of Ice
  - Monitored Lower Barun, Imja, Tsho Rolpa, Dona (Thulagi), and Bajura glacial lakes over 1992 to 2024, documenting changes in lake area and trends.
  - Processed and analyzed satellite imagery using Google Earth Engine (GEE) to map lake extent and track temporal variations.
  - It was showcased in an exhibition, highlighting glacier dynamics and long-term climate observations.

The Small Earth Nepal (SEN) | *Position: Research Assistant (Dec 2024-Jan 2025)*

- Conducted field surveys and data entry under the project "SWOT Prior Estimates of Nepal-India Transboundary River Discharge" (Phase I)

Department of Hydrology and Meteorology (DHM) |*Position: Field Surveyor(Oct 2024)*

- Conducted on-site field surveys to map flood extents and directly observe the impacts on communities, infrastructure, and local landscapes.
- Captured critical real-world flood dynamics, providing hands-on insights into hydrological behavior and flood vulnerability.
- Played a key role in coordinating field teams, enhancing practical skills in rapid assessment, data recording, and disaster observation techniques.

IELTS - Yuwa Education Services | *Position: Instructor (2021-2024)*

- Delivered interactive IELTS training, focusing on listening, reading, writing, and speaking skills.
- Developed customized lesson plans and mock tests to address individual student needs.
- Provided targeted feedback and coaching, helping students improve performance and build confidence in exam settings.

Radio Nepal | *Position: Child News Reader (2010-2015)*

- Delivered daily news segments for the children-focused program "Baal Samachar", ensuring clear and engaging communication for young audiences.

PUBLICATIONS

Pradhananga, D., Adhikary, S., Dhakal, B. N., Dhakal, A., **Ghimire, A.**, Dhital, S., & Manandhar, S. (2025). Cryosphere change in the warming Himalaya: Snow cover and snowline trends in Nepal's Langtang Basin (1988-2024). *Journal of Tourism and Himalayan Adventures*, *7*(1), 14–26. https://doi.org/10.3126/jtha.v7i1.80875

CONFERENCES

- WET-WAR 2025 – International Conference on Wetlands and Water Resources for Sustainable Development | National Institute of Technology (NIT) Patna, India | 29–31 December 2025
  - Presented research under the CLASSIK project on flood modelling and climate-resilient water management

POSTER PRESENTATION

Topic: Assessment of Reanalysis Data for Langtang Basin: A Comparative Insights of ERA5, MERRA-2 and WFDEI *(Feb 2024)*

- Comparison of bias-corrected reanalysis datasets with in-situ temperature datasets in Langtang basin to see the usability of those datasets
- STEM Workshop presentation under the guidance of Fulbright Specialist, Research Professor, and Mentor, **Dr. Juan F. Arratia**

UNDERGRADUATE RESEARCH WORK

- Assessing the Accuracy of MERRA-2 Temperature Data in High Altitude Regions: A Study of the Langtang River Basin *(2024)*

TRAINING

- Interactive Climate Workshop on 'Creeping' Environment Problems, Plot to Save the Planet *(2023)*

- STEM Workshop to Prepare Scientific Research Poster *(Feb 2024)*
- Google Earth Engine (GEE) *(July 2024)*

VOLUNTEERING

International Conference on Mountain Hydrology and Cryosphere (ICMHC)

- Served as a volunteer on "International Conference on Mountain Hydrology and Cryosphere (ICMHC)" in association with The Small Earth Nepal *(2023)*

The Small Earth Nepal (SEN)

- Volunteered on QGIS Training Workshop Organized by SEN *(March 2024)*
- Surveyor at Nagdaha on Floating Treatment Wetland System (FTWS) Project *(2022)*

Society of Hydrology and Meteorology (SOHAM)-Nepal

- Assisted research paper publishing team to prepare research papers drafts sent by researchers to further publish in SOHAM Nepal journals using overleaf *(Oct 2024-Dec 2024)*

COLLEGE INVOLVEMENT

Student's Organization of Meteorology (SOM)

- Treasurer *(2024)*

SKILLS

- Python Programming
- Grid Analysis and Display System (GrADS)
- Climate Data Operator (CDO)
- QGIS, Google Earth Engine (GEE)
- Working on Reanalysis Datasets, NetCDF files, and Handling Large Climate datasets

REFERENCES

Dr. Dhiraj Pradhananga
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Dr. Nir Krakauer
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The City College of New York, USA
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Dr. Bo Wang
Assistant Professor
Department of Earth and Atmospheric Sciences
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