Ashish Bhattarai

Department of Earth and Atmospheric Sciences
University of Houston, Houston, Texas, USA
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Education:

PhD, Atmospheric Sciences 2023 – present
University of Houston, Houston, Texas, USA *(CGPA: 4/4)*

Master of Science, Physics 2018-2020
Central Department of Physics, Tribhuvan University, Kathmandu, Nepal. *(CGPA: 3.87/4)*

Bachelor of Science, Physics 2013 - 2017
Tri-Chandra Multiple Campus, Tribhuvan University, Kathmandu, Nepal.

Research interest:

Artificial Intelligence	Extreme Weather Events	Air quality modeling
Numerical weather predictions	Boundary layer meteorology	Emission inventory
Remote sensing	Climate-Disease mapping	

Skill:

Numerical Models: WRF, CAMx, GEOS-Chem
Programming: Artificial Intelligence (AI), Python, Fortran, Matlab
Report Writing
Teaching and Classroom Management
GIS tools: ArcGIS, QGIS
Instruments: SODAR RASS, UAVs

Professional Experiences:

Teaching Assistant: University of Houston, Houston, Texas, USA Sep 2024-present

- Course: Introduction to Climate Change Lab.

Research Assistant: University of Houston, Houston, Texas, USA Jun 2024 – Aug 2024
Project Engaged:

- Evaluating the performance of WRF-CAMx during different sky conditions.

Teaching Assistant: University of Houston, Houston, Texas, USA Aug 2023- May 2024

- Course: Introduction to Climate Change Lab.

Physics Instructor: Koshi Saint James Higher Secondary School, Sunsari, Nepal 2021-2023

Research Assistant: National Atmospheric Resource and Environmental Research Laboratory (NARERL), Central Department of Physics, Tribhuvan University, Kirtipur. 2018 - 2021.

Projects Engaged:

- Air pollution dispersion modeling and control system developments over Pokhara valley and Dharan-Biratnagar area.
- Climate-driven risk map for vector-borne diseases.

Honors and Awards:

- Recipient of NSM Alumni Association (Eckhard Pfeifer/Carolyn Farb) Scholarship for the academic year 2025-2026.
- Best poster presentation award on 31st Dobrin Lecture Poster Award, University of Houston, Houston, Texas, 2025.
- Research grant for Master's dissertation, Nepal Youth Council (2020), Kathmandu, Nepal.

Publications:

Bhattarai, A., Shrestha, S., & Regmi, R. P. (2022). Spatial Distribution of Groundwater Level over Lowlands of Morang District of Eastern-Nepal. *Journal of Nepal Physical Society*, *8*(3), 39–44. https://doi.org/10.3126/jnphyssoc.v8i3.50724.