

Pawan Thapa

<https://thapawan.github.io/Portfolio/> | thapawan.github.io

PROFESSIONAL EXPERIENCE

Teaching Assistant, University of Alabama — 2022–2026

- Mentored **93+ students** in GIS, Remote Sensing, and UAV labs; developed hands-on training modules.

Lecturer, Kathmandu University — 2019–2022

- Taught GIS, Python, Remote Sensing; supervised research projects for **90+ students**.

Head of Department, Nepal Banepa Polytechnic Institute — 2018–2019

- Managed curriculum, staff (10), and **150+ students**; led diploma-level courses.

Geoinformatics Expert, Laxmi Shrestha & Co. — 2017

- Executed GIS-based urban planning and disaster risk projects across **10+ districts**.
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SELECTED PROJECTS

- **NASA SWOT & USGS NGWOS**: Sedimentation analysis & water quality monitoring using UAV & satellite data.
 - **River Meander Classification (CUAHSI)**: Applied ML/DL for fluvial dynamics modeling.
 - **Hurricane Helene Impact Study**: Assessed river morphology changes in East Tennessee & NC.
 - **LiDAR & UAV Mapping**: Advanced ecological development projects using DGPS drones.
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HONORS & TRAINING

- **Travel Award**, UCGIS CyberTraining — 2026
 - **Finalist**, GISS Student Honors Paper, AAG — 2025
 - **HydroLearn Fellowship**, CIROH Conference — 2024
 - NASA Virtual Field Trips, UAV Demonstration, Hyperspectral Workshop — 2023–2025
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EDUCATION

- **Ph.D. Geography (GIS & Remote Sensing)** – University of Alabama, USA (**GPA: 4.0**) — 2026
 - **M.Sc. Geoinformatics** – University of Muenster, Germany — 2017
 - **B.Sc. Geomatics Engineering** – Kathmandu University, Nepal — 2013
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TECHNICAL SKILLS

GIS Tools: ArcGIS Pro, QGIS, ENVI, ERDAS, Google Earth Engine

Programming: Python, R, JavaScript, Java, C/C++

Cloud Platforms: AWS, Azure, Google Cloud, HPC

Hydrology Tools: HEC-RAS, HY-8

Field Instruments: UAVs, LiDAR, DGPS, HyCAT, ASD, YSI

MEMBERSHIPS & LICENSES

AAG | AGU | IEEE | ISPRS | Global Soil Erosion Mapping Initiative

Licenses: FAA sUAS, Driving, Vessel