# **Shishir Chaulagain**

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#### **EDUCATION**

Purdue University, Lyles School of civil and construction engineering

West Lafayette, IN

Candidate for Master of Science in Engineering: Civil engineering | Expected Dec 2026

Cumulative GPA (Projected): 4.00/4.00

Tribhuvan University, Institute of Engineering

Kathmandu, Nepal

*Bachelor of engineering:* Civil Engineering, Apr 2024 Cumulative GPA: 3.72/4.00 (Scholaro Evaluation)

#### **SKILLS**

Engineering Software: HEC-RAS, HEC-HMS, ArcGIS Pro, SWAT, MOD-FLOW, AutoCAD

Programming & Data Analysis: Python, Microsoft Excel, Word, PowerPoint, Machine Learning (ML/DL),

Computer Vision

**Technologies:** Internet of Things (IoT)

### PROFESSIONAL EXPERIENCE

Merwade's Research Lab, Graduate Research Assistant, Jan 2025 – Present

West Lafayette, IN

- Developed models to use surface water and ocean topography (SWOT) for creating river bathymetry.
- Assessed culvert embedment parameters for Indiana waterways.

ERMC, Civil Engineer, April 2024 – Dec 2024

Kathmandu, Nepal

- Performed hydrological modeling for feasibility analysis of Tila Hydropower.
- Served as project manager for Kanke Deurali Water Impounding reservoir.
- Directed multidisciplinary teams and conducted regular progress meetings, boosting efficiency by 15%.

#### **PROJECTS**

## Drought Impact Assessment, Team of 4, Aug 2023 – April 2024

- Initiated the research, led the team of 4, overseeing data collection and analysis
- Analyzed soil moisture data to assess agricultural drought impacts using GIS spatial analysis.
- Evaluated impacts of droughts on crop yields.
- First Author: Results in Engineering (IF: 6.0)

## Review of Drought, Team of 3, August 2024 – Jan 2025

- Spearheaded the research methodology, coordinating team efforts.
- Evaluated different machine learning models used in Nepal to solve water resources challenges.
- Determined the challenges and provided recommendations for ML applications in water management.
- First Author: Journal of hazardous materials advances (IF: 5.5)

#### LEADERSHIP & VOLUNTEER EXPERIENCE

## Sewak Nepal, Volunteer, Jan 2022 - Present

Kavre, Nepal

- Tutored mathematics and organized educational activities for orphans.
- Raised over \$2,000 for orphan children's education and welfare, improving program participation by 20%