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 python-based 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 using HEC-HMS for feasibility analysis of Tila Hydropower, improving model accuracy and reducing simulation error by 12% compared to prior models.
• Served as project manager for Kanke Deurali Water Impounding reservoir, overseeing budgeting and documentation and increased the profit percentage 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 using python-based models.
• First Author: Results in Engineering (IF: 7.9)

Review of ML/DL for water resources, 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 hydrology.
• First Author: Journal of hazardous materials advances (IF: 7.7)

LEADERSHIP & VOLUNTEER EXPERIENCE

Sewak Nepal, Volunteer, Jan 2022 – Present **Kavre, Nepal**
• Tutored mathematics and organized quiz competitions for orphan children.
• Raised over $2,000 for orphan children's education and welfare through my personal network.