

NISCHAL KAFLE

CIVIL ENGINEER

Memphis, TN

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OBJECTIVE

Civil engineer specializing in hydrology and water policy, with expertise in statistical modeling, simulation, and experimental research. Focused on advancing hydrological modeling, climate impact assessment, and water resource management to support flood resilience and sustainable water infrastructure.

EXPERIENCES

08/2021-Present

Graduate Assistant & Teaching Assistant

University of Memphis, Memphis, TN

- Proposed four novel research ideas on hydroclimatic extremes, hydrological modeling, and the use of ML/DL to hydrologic predictions (3 manuscripts under review; 2 additional in preparation).
- Assisted in teaching undergraduate courses and labs; graded assignments and exams, and supported students with course material
- Contributed to the preparation of two research grant proposals: one funded by TDEC (\$500k) and one submitted to NASA NSPIRES

08/2019 – 08/2021

Water Resource Engineer

Ministry of Physical Infrastructure Development, Province 5, Nepal

- Reviewed feasibility reports for 30+ irrigation and disaster mitigation projects, improving design efficiency and optimizing project costs
- Collaborated with Asian Development Bank and World Bank to draft procurement guidelines for 7 irrigation projects
- Conducted groundwater research to support state-level water resource planning

08/2015 -07/2019

Engineer/Head of Technical Branch

Ministry of Irrigation, Kathmandu, Nepal

- Managed technical operations for 150+ irrigation and disaster mitigation projects by working closely with local farmers and convincing them for active participation and contributions
- Conducted environmental impact assessments and hazard mapping to support sustainable irrigation development
- Provided training to local farmers and 20+ user committees, enhancing their knowledge and skills

12/2014 -07/2015

GIS Expert and Project Manager

Bright Future International Pvt. Ltd., Kathmandu, Nepal

- Prepared transportation master plan for 5 rural municipalities in hilly region of Nepal
- Integrated local ward committee feedback into municipal planning processes

EDUCATION

08/2021- Present

PhD Engineering Science, *The University of Memphis (UofM), Memphis, TN*

Expected graduation in May 2026

08/2021- 12/2024

MS Civil Engineering (Water Resources) | GPA – 3.95 | *The University of Memphis*

12/2010- 12/2014

BS Civil Engineering | GPA – 3.92

Tribhuvan University (TU), IOE Central Campus, Pulchowk, Nepal

SKILLS

Softwares

GIS (ArcGIS Pro, QGIS), SWMM, PCSWMM, AutoCAD, Civil 3D, HEC-RAS, HEC-HMS, Open FOAM & Para View

Programming

Python (pytorch, NumPy, JAX, ML/DL), C/C++, R, MATLAB, Bash scripting, HTML, CSS, JavaScript

Research Tools High-performance computing (HPC; BigBlue, TAAC), Unix/Linux, Google Earth Engine, Git/GitHub, Latex (Overleaf),

ACHIEVEMENTS

07/2025 **Open-source developer** of [nsEVDx](#), a Python library for hydroclimatic extremes
03/2025 **World-Class Achiever**, Division of International Affairs, UofM
03/2025 **Dissertation Completion Research Grants (5000\$)**, Graduate School, UofM
2022/2023/2024 **Conference travel grants** by Graduate Student Association, UofM
08/2021-Present **Graduate Assistantship**, Department of Civil Engineering, UofM
12/2010-12/2014 **Merit Based Scholarship** to pursue bachelor's in civil engineering, TU

LEADERSHIP

09/2025-Present **Treasurer**, Tau Beta Pi – The University of Memphis Chapter
10/2023 – 10/2024 **President**, Nepalese Student Association at the University of Memphis (NSAUM)
- Organized five cultural events and a Level 1 event with over 350 participants
05/2024-Present **Executive Member**, NSF NHERI Graduate Student Council,
- Participated in meetings, online seminars and presented at the conference organized by NHERI
03/2022 – 08/2023 **General Assembly Representative**, Graduate Student Association (GSA)
- Facilitated GSA services to the Departments of Herff College of Engineering, UofM
- Reviewed travel grant applications of 10 applicants
09/2021 – 09/2022 **Executive Member**, NSAUM
- Organized five cultural events and a Level 1 event

VOLUNTEERING

11/2024 **Judge**: Helen Hardin Honors College Symposium, University of Memphis
2024-Present **Reviewer**: Journal of Open-Source Software and Global Climate Observing System
05/2015 **Disaster Relief Volunteer**, 2015 Nepal Earthquake (14 districts)

MEMBERSHIPS

12/2024-Present Tau Beta Pi – The Engineering Honor Society
05/2022-Present American Society of Civil Engineering
08/2022-Present American Geophysical Union
02/2015-Present Nepal Engineering Council

PUBLICATIONS

Kafle, N., & Meier, C. I. (2025). nsEVDx: A Python library for modeling Non-Stationary Extreme Value Distributions. [arXiv preprint arXiv:2509.07261](#) [Under review]
Meier, C.I., Dell'Aira, F., **Kafle, N.**, Burnette, D.J. (2024). Updating Equations for Peak Flow Estimation in Urban Creeks and Streams of Tennessee (Part 1). Research final report from the University of Memphis, sponsored by the Tennessee Department of Transportation Long Range Planning Research Office & Federal Highway Administration

REFERENCES

Dr. Claudio I. Meier Advisor
The University of Memphis, cimeier@memphis.edu, +1-9012978855,
Dr. Daniel Wright Dissertation committee member
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