Shishir Chaulagain

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LinkedIn • Portfolio

Professional Summary

A young, dynamic, result-oriented, and productive graduate of Civil and Environmental Engineering with deft research and analytical skills. I am a fast learner and an open-minded team player who is passionate about pursuing a career as a researcher and academia, with the hope of making significant and enormous contributions via innovative research.

Interests

ML/DL, AI, physics-based ML, Climate Change, Drought, Flood, remote sensing, GIS, UAV, Structural monitoring, Geohazards, Modulus of rigidity, Traffic Simulation and Automation, Traffic modelling, computational techniques, Hydrological Modelling, Traffic Control

Education

Tribhuvan University, Kathmandu, Nepal

2024
Bachelor of Engineering (B.E.) in Civil Engineering
Final Grade: First Division
Percentage: 74.5
Thesis Title: Evaluating Different Drought Products for Assessing Drought and Implications on Agriculture in Nepal.

St. Xaviers College, Maitighar, Kathmandu, Nepal

2020
High School (Physics)
Final Grade: A
GPA: 3.435/4.0

Nobel Academy, New Baneshwor, Kathmandu, Nepal

2018
Secondary School
Final Grade: A+
GPA: 3.75/4.0

Skills and Competences

- Personal Strengths: Excellent communication, interpersonal relationship skills, Leadership and Team Player, Organizational skills, Time and Project Management
- Software: Machine Learning, Deep Learning, ArcGIS, ArcSWAT, HECRAS, GEE, Python, AutoCAD, etc

Research Experiences

Researcher, Soil Moisture Prediction Project 2024 – Present
Utilized deep learning to predict soil moisture, aimed at enhancing agricultural productivity and water resource management.

Researcher, Drought Impact Assessment 2024
Studied drought impacts on agriculture, providing insights for sustainable farming practices. (First author, (IF= 6.1))

Researcher, Drought Clustering and Prediction Project 2024 - Present
Planning to divide Nepal into clusters using K-means clustering, created susceptibility maps, and predicted drought in specific clusters using optimized LSTM algorithms.

Publications

Chaulagain, S., Lamichhane, M., Chaulagain, U., Gyawali, S., Shrestha, S., & Pandey, V. P. (2024). Evaluating Different Drought Products for Assessing Drought and Implications on Agriculture in Nepal. (in review)

Industrial Experience

Research Associate

Apr 2024 – Till date
Environment and Resource Management Consultant (ERMC), New Baneshwor, Kathmandu, Nepal

- Conducted Extreme Flow Analysis, making IDF curves and fitting different statistical techniques to evaluate return periods of floods for Marsyangdhi Hydropower Project.
- Worked as GIS-expert for Tila Hydropower Project.
- Working on Stability of Kanke Deurali Water Impounding Reservoir.

Volunteering & Leadership Experience

Member of Sewak Nepal

Jan. 2022 – till Date

- Provided awareness and education for orphan children on choices and career paths.
- Provided tutoring of mathematics and introduced orphan children to the possibilities of AI.
- Conducted various extra-curricular activities such as mathematical races, quiz competitions, and spelling competitions within the orphanage premises.

Team Lead, Research Project

2023 - 2024

- Evaluating Different Drought Products for Assessing Drought and Implications on Agriculture in Nepal, Advanced College of Engineering and Management
- Handled the selection of research topics and appointment of co-authors.
- Directed the planning and coordination efforts and provided instruction on various codes and work methods to achieve the desired outcome.

Awards & Honors

- Advanced College of Engineering Scholarship-2022: Top Four Ranked Student for Fifth Semester.
- Advanced College of Engineering Scholarship-2023: Top Four Ranked Student for Seventh Semester.