

ROHAN SINGH WILKHO

CONTACT

📞 979-549-8904

✉ rohanswilkho_93@tamu.edu

🌐 rohanswilkho93.github.io

SKILLS

Machine & Deep Learning

Natural Language Processing,
Computer Vision, Feature
Engineering, Prompt Engineering,
Supervised and Unsupervised
Learning

Geospatial

Remote Sensing, Geospatial Data
Analysis, ArcGIS Python Scripting

Software

Python, R, SQL, ArcGIS Pro, C++

Interdisciplinary

Causal Discovery, High Performance
Computing

Professional

Analytical Thinking, Collaborative
Problem Solving, Project
Management, Research

SELECTED AWARDS

Academic

Richard Lietz '45 Endowed Memorial
Scholarship

Leadership/Service

Texas A&M Montgomery Award

Research

2nd Prize in ASFPM Conference
Student Paper Competition

PROFILE

Combining my passion for technology and societal progress, I specialize in machine learning, data analysis and remote sensing, with a focus on developing innovative GIS and AI tools. My experience is enriched by a data science internship and current academic pursuits in both a Doctorate in Civil Engineering and a Master's in Computer Science. I am dedicated to interdisciplinary problem-solving and technological innovation, aiming to contribute meaningful solutions to complex challenges.

RELEVANT WORK EXPERIENCE

Graduate Research Assistant

Jan 2019 - Present

Texas A&M University, College Station, Texas

- Led AI-driven web harvesting system at floodfinder360.org, delivering a 63% performance boost in information retrieval for past flash flood events
- Innovated a community-level GIS tool, enhancing flash flood causality identification and susceptibility prediction by 35%
- Developed the Platform for Resilience Inference Measurement and Enhancement, improving socio-economic disaster understanding by 23%: it assesses disaster resilience indices, along with socio-economic influencers
- Leading the development of early warning systems and digital twins for flash flooding, enabling predictive flood mapping with ample lead time for life and property preservation

Graduate Teaching Assistant

Aug 2022 - Present

Texas A&M University, College Station, Texas

- Created tailored lab manuals and led hands-on sessions for 60+ students, boosting practical skills and engagement
- Collaborated with instructors, integrated tech, and offered personalized support, enhancing the educational environment

Data Science Intern

May 2022 - Aug 2022

Pioneer Natural Resources, Irving, Texas

- Designed and deployed a predictive model for real-time well-in-test identification during rotational well testing, achieving 93% accuracy
- Successfully tackled a complex business challenge in an unfamiliar industry within a three-month timeframe

CERTIFICATIONS

Geographic Information Sciences

Texas A&M University (Grad Cert.)

Spatial Data Science

ESRI

ArcGIS Python Scripting, R, SQL

LinkedIn

Python

Coursera

COMMUNITY ENGAGEMENT

Graduate and Professional Student Government

Speaker and Executive VP, VP of Information, Senator (2019-23)

Civil and Environmental Engineering Graduate Student Association

President, VP, Officer & Founding Member (2019-23)

EDUCATION

Doctorate in Civil Engineering

Texas A&M University, College Station, Texas

Jan 2019 - Aug 2024

Masters in Computer Science

Texas A&M University, College Station, Texas

Aug 2021 - May 2024

Bachelors in Civil Engineering

Jadavpur University, Kolkata, India

Aug 2012 - Jun 2016

RELEVANT PUBLICATIONS

DFFS: A GIS-based tool for dynamic assessment of community susceptibility to flash flooding

Sustainable Buildings and Society (Under Review)

FF-BERT: A BERT-based ensemble for automated classification of web-based text on flash flood events

Advanced Engineering Informatics, November 2023

<https://doi.org/10.1016/j.aei.2023.102293>

Predicting Flash Flood Economic Damage at the Community Scale: Empirical Zero-Inflated Model with Semicontinuous Data

Natural Hazards Review, Sept 2023

<https://doi.org/10.1061/NHREFO.NHENG-1729>

FF-IR: an information retrieval system for flash flooding developed by integrating public domain data and machine learning

Environmental Modelling and Software, June 2023

<https://doi.org/10.1016/j.envsoft.2023.105734>