Shrinkhal Wagle

swagle@crimson.ua.edu • (205) 887 1017

EDUCATION

University of Alabama (August 2021-May 2025)
Bachelor of science
Major: Mathematics
Minor: Physics
CGPA: 4.00/4.00

Relevant Course Work: Real Analysis, Complex Analysis, General Topology, Introductory Group Theory, Advanced Linear Algebra, Applied Differential Equations, Electricity and Magnetism, Classical Mechanics, Quantum Mechanics

RESEARCH EXPERIENCE

Research Experience for Undergraduates (REU), The University of Alabama (Summer 2025)
Advisor: Dr. Chuntian Wang
- Constructing stochastic compartment models for diseases
- Simulating and comparing the epidemic dynamics and long-term behavior of stochastic and deterministic disease models

Dr. Clement Groundwater Research Group, The University of Alabama

- Solved different groundwater flow problems using the Physics Infused Neural Network model.

   Shrinkhal Wagle, Eniola Webster-Esho, Ahmed Shakir Ali, Farhad Jazaei, T. Prabhakar Clement: Use of Physics-Infused Neural Networks for Solving Different Types of Environmental Transport Problems. [Oral Presentation] EWRI Congress 2024

- Build recurrent neural networks for time-series prediction

   Fatemeh Saedi, **Shrinkhal Wagle**, T. Prabhakar Clement: A Machine Learning Model for Predicting Groundwater Recharge using Groundwater Level Monitoring Data. [Oral presentation] EWRI Congress 2024

Dr Nair Research Group, The University of Alabama
- Developed CNN Models in Pytorch using observational data of galaxies to identify post-mergers.
- Studied properties of galaxy mergers and correlation of post starburst fraction to properties of mergers.

WORK EXPERIENCE

Peer Tutor, Mathematics Technology Learning Center
- Tutored students on introductory math along with Calculus I, II and III, Differential Equations

Learner's Assistant, Department of Physics
- Assisted Professors and TA on Laboratory classes.
- Tutored on Introductory Physics courses.

LEADERSHIP EXPERIENCE

Nepalese Student Association (NSA) at The University of Alabama (Aug 2021-present)
Positions Held: Secretary, Advisor
- Organized cultural events representing Nepali culture to campus wide population
- Helped new incoming students transition to life on campus.

SKILLS

Programming languages: Python, MATLAB, JavaScript, HTML, CSS