Wayne Ndlovu

1414 Naismith Dr, Lawrence, KS, 66045 • 413 404 6669

wndlovu@ku.edu • waynendlovu.rbind.io • github.com/wndlovu

EDUCATION

MSc Geology   Spring 2024 (expected)
University of Kansas   Lawrence, KS

A.B Statistical and Data Sciences; Geosciences (Highest Honors)   May 2022
Smith College   Northampton, MA

- **Relevant Coursework:** Environmental Data Analysis and Statistics, Advanced Programming for Data Science, Visual Analytics, Multiple Regression, Research Design and Analysis, Linear Algebra, Intro to Data Science, Intro to Probability and Statistics, Intro to Computer Science through Programming, Contaminant Transport, Groundwater Geology, Geomorphology
- **Technical Skills:** R, Python, MS Products, Git/GitHub, ArcGIS, Tableau, SQL

CONFERENCE PRESENTATIONS

Ndlovu, W., Guswa, A., Rhodes, A. (2022). Accumulation of road salt in a calcareous fen: Kampoosa Bog, western Massachusetts, H25S-1330, AGU Fall Meeting, Chicago, IL

Ndlovu, W., Zipper, S. (2022). Assessment of the AquaCrop-OSPy in simulating crop-water productivity in a corn field (Sheridan-6 LEMA, Kansas), Kansas Governor's Water Conference, Manhattan, KS

Ndlovu, W., Rhodes, A., Guswa, A., Kreutzer, H., Grilliot, H., Wetzel, P. (2022). Determining conditions for storage and release of road salt pollution in a calcareous fen: A hydrological and geochemical analysis of Kampoosa Bog, Stockbridge and Lee, MA, SN34-2, Northeastern GSA Spring Meeting, Lancaster, PA

Ndlovu, W., Wade, J., Kelleher, C., Gannon, J., Zimmer, M. (2021). Examining streamflow flashiness trends across the northeastern USA, H45C-1195, AGU Fall Meeting, New Orleans, LA.

NON-PEER REVIEWED PUBLICATIONS

Ndlovu, W., (2022). Determining conditions for storage and release of road salt pollution in a calcareous fen: A hydrological and geochemical analysis of Kampoosa Bog, Stockbridge and Lee, MA. *Honors Thesis*

Rhodes, A., Wetzel, P., **Ndlovu, W.** (2021). Kampoosa Bog Water Quality and Vegetation Composition Review and Analysis. *Report for Natural Heritage and Endangered Species Program of the Massachusetts Division of Fisheries & Wildlife in the Department of Fish and Game*

RESEARCH AND PROJECTS

Urban Institute   **Remote**

Capstone Project   Sept 2021 – Dec 2021
- Performed differential privacy methods (suppression, top and bottom coding, rounding, generalizing, and sampling) on historic US census data, documented code and wrote a report for client
- Designed and developed a ShinyApp exploring the different data privacy methods

Syracuse University, Computational Hydrology Lab   **Syracuse, NY**

Summer Research Intern to Prof. Christa Kelleher   June 2021 – Aug 2021

Topic: Effects of urbanization and climate change on stream flashiness index in northeastern streams
- Built an R package {easyrbi} that retrieves USGS stream data and calculates Richards-Baker Flashiness Index (RBI) trends github.com/amutaya/easyrbi
- Extracted over 50 years of USGS stream data for 304 sites and calculated annual flashiness index at each site github.com/wndlovu/Stream-Flashiness-Index
- Analyzed USGS GAGES-II land use time series datasets and conducted Mann-Kendall trend analysis

MassWildlife Natural Heritage and Endangered Species Program **Northampton, MA**

Data Analyst Intern Aug 2020 – Feb 2021

- Performed trend analysis on water chemistry data collected from 2017 - 2020 at Kampoosa Bog, MA using R
- Utilized GIS software and LiDAR to map watershed influencing the Kampoosa wetland to understand potential sources of road salt contamination

Smith College, Geosciences Department **Northampton, MA**

Research Assistant to Prof. Amy Rhodes May 2019 – Dec 2020

Topic: Effects of road salt on water and soil geochemistry of wetlands in western central Massachusetts
- Utilized Google Earth and GIS MassDEP Wetlands data layers to identify wetlands located in western Massachusetts
- Collected surface water, groundwater, peat, and organic mud samples which I analyzed for major anions, cations, and isotopes
- Interpreted water chemistry data and designed a research summary poster

WORK EXPERIENCE

Smith College, Geosciences Department **Northampton, MA**

Laboratory Assistant Feb 2021 – May 2021

- Prepared lab equipment and samples for 12 students every week
- Ran students' samples on Inductively Coupled Plasma Mass Spectrometry (ICP-MS), Ion Chromatography (Dionex ICS-600DP), Isotope Analyzer (Picarro Cavity Ringdown Spectrometer L2130-i) and Automated Titration Analyzer

Smith College, Department of Residence Life **Northampton, MA**

House Community Advisor Aug 2019 – June 2021

- Collaborated with a co-worker to oversee 70+ residents
- Developed and conducted 15 educational programs on diversity, personal development, bias incidents, and Title IX which had a 15% attendance increase

AWARDS
- Elected Sigma Xi 2022
- Mu Sigma Rho 2022
- The One Who Sees the Most Rocks Wins Prize for excellence in research, Smith College 2022
- McKinley Honors Fellowship, Smith College 2021 - 2022
- Grinspoon Entrepreneurship Initiative Concept Award 2020
- Summer Undergraduate Research Fellowship, Smith College 2019, 2020, 2021

SERVICE
- Member, Cromwell Day Committee, Smith College April 2021 – May 2022
- Co-chair, Smith College Science Center Committee on Diversity Sept 2019 – Dec 2021
- Founder and President, Rotaract Club Jan 2019 – May 2022
- Member, Smith College Year on Climate Change Committee Jan 2020 – Jan 2021
- Member, Western Massachusetts Science for the People Sept 2019 – March 2020

PROFESSIONAL MEMBERSHIPS
The American Statistical Association, The American Geophysical Union