

# Wayne Ndlovu

1 Chapin Way, Unit 8450, Northampton, MA • 413 404 6669 • [wndlovu@smith.edu](mailto:wndlovu@smith.edu)

---

## EDUCATION

### Smith College

Bachelor of Arts, Majors: Geosciences, Statistical and Data Sciences  
GPA

Northampton, MA

Expected May 2022  
3.82

### Relevant Coursework

Groundwater Geology, Geomorphology, Aqueous Geochemistry, Chemistry I, Calculus I & II, Introductory Physics I, Intro to Data Science, Intro to Probability and Statistics, Research Design and Analysis, Linear Algebra, Visual Analytics, Multiple Regression

## SKILLS

R • Python • Shiny • Excel • Esri Software – ArcGIS, ArcMap and ArcGIS StoryMaps • LiDAR • GPS Data Collection • Google Earth • Data Visualization • Statistical and Trend Analysis • Thermal Image Analysis • Writing

---

## RESEARCH EXPERIENCE

### Syracuse University, Computational Hydrology Lab

#### Summer Research Intern to Prof. Christa Kelleher

Syracuse, NY

June 2021 – Present

Research Topic: Effects of urbanization and climate change on stream flashiness index in northeastern streams

- Extracted over 50 years of USGS stream data for 304 sites and calculated annual flashiness index at each site using R
- Analysed USGS GAGES-II land use time series datasets and conducted Mann-Kendall trend analysis

### MassWildlife Natural Heritage and Endangered Species Program

#### Data Analyst Intern

Northampton, MA

Aug 2020 – Feb 2021

- Performed trend analysis on water chemistry data collected from 2017 - 2020 at Kamposoa Bog, MA using R
- Utilised GIS software and LiDAR to map watershed influencing the Kamposoa wetland to understand potential sources of road salt contamination
- Created interactive maps and graphs summarizing the data

### Smith College, Geosciences Department

#### Research Assistant to Prof. Amy Rhodes

Northampton, MA

May 2019 – Dec 2020

Research Topic: Effects of road salt on water and soil geochemistry of wetlands in western central Massachusetts

- Utilised 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, Spatial Analysis Laboratory

#### Associate

Northampton, MA

Aug 2021 – Present

- Wrote a user manual for a FLIR thermal camera and was responsible for its first drone flight
- Spearheaded the use of LiDAR in a mapping project for trails in Northampton, MA

Smith College, Geosciences Department

Laboratory Assistant

Northampton, MA

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 Analyser (Picarro Cavity Ringdown Spectrometer L2130-i) and Automated Titration Analyzer

Smith College, Department of Residence Life

House Community Advisor

Northampton, MA

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

NUST-American Space

Event Coordinator Intern

Bulawayo, Zimbabwe

July 2017 – July 2018

- Organized the annual EducationUSA College Fairs in July 2017 and July 2018 which had an attendance of 250 high school students
- Worked closely with the events coordinator to market more than 96 community building workshops held at space

---

EXTRACURRICULAR ACTIVITIES

- |   |                        |
|---|------------------------|
| • Member, Cromwell Day Committee                                | April 2021 - Present   |
| • Member, Geological Society of America                         | Aug 2020 – Present     |
| • Co-chair, Smith College Science Center Committee on Diversity | Sept 2019 – Present    |
| • Member, Western Massachusetts Science for the People          | Sept 2019 – March 2020 |
| • Member, Smith College Year on Climate Change Committee        | Jan 2020 – Feb 2020    |
| • Founder and President, Rotaract Club                          | Jan 2019 – Feb 2020    |

---

AWARDS

- |   |                  |
|---|------------------|
| • McKinley Honors Fellowship, Smith College               | 2021 - Present   |
| • Grinspoon Entrepreneurship Initiative Concept Award     | 2020             |
| • Summer Undergraduate Research Fellowship, Smith College | 2019, 2020, 2021 |

