

PRINCE OBOSU

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RESEARCH INTERESTS

Spatial Community Resilience	Health and Medical Geography
Suitability Studies	Land Use and Land Cover Changes
Machine Learning	Geographic Information Science

EDUCATION

Doctor of Philosophy in Remote Sensing of Forest Resources and Biology	Jul 2025 - Present
University of Maine, Orono, ME	
Research Advisors: Sandra De-Urioste Stone, Parinaz Rahimzadeh Bagjiran	
Master of Arts in Geography and Environmental Studies (Geospatial Science)	Aug 2023 – May 2025
Miami University, Oxford, Ohio (GPA: 3.96/4.00)	
Advisor: John Maingi	
Bachelor of Science in Geomatic Engineering	Aug 2018 – Sep 2023
Kwame Nkrumah University of Science and Technology (KNUST), Kumasi	
Bachelor’s Degree, Geomatic Engineering	
• CGPA: 3.82/4.00	

RESEARCH EXPERIENCE

Graduate Research Assistant, University of Maine, Orono, ME	Sep 2025 - Present
Systematic Review on Spatial Community Resilience Frameworks	
Development of Spatial Community Resilience Framework for the State of Maine	
Graduate Student Collaborative Research	Nov 2024 - Present
Comparison of Machine Learning Algorithms for LULC Classification.	
Spatial Accessibility to Primary Health Care in Awutu Senya East Municipal, Ghana.	
Research Assistant, Geomatic Engineering Department, KNUST	Nov 2022 – Jun 2023
Land Use and Land Cover Mapping	
Hydrothermal Alteration of Mineral Deposits in Ghana	

JOURNAL PUBLICATIONS

2025	Thesis paper, Predicting Malaria Prevalence at the Regional and Local Level: A case study in the Ashanti Region of Ghana.
Submitted and under review:	
2025	Prince Obosu , John Maingi, Mary Henry, Shenyue Jia, Robbyn Abbitt, Varun Goel, Pius Appau, and Rhony Ochieng. Predicting Malaria Prevalence in the Ashanti Region: A Machine Learning Approach. <i>Malaria Journal</i> .
2025	Prince Obosu , John Maingi, Agnes Gyamfuaa Okyere, Varun Goel, Kwame Obeng, Pius Appau, and Esther Kissiwaa Anim. Malaria Prevalence Factors Among Households in the Central Districts of Ashanti Region, Ghana. <i>Malaria Journal</i> .
2025	Prince Obosu , Christopher Atta Amponsah, Clifford Boateng, Augustine Abora Ofobi, and Thomas Liyajabale Waliba. Performance Comparison of Machine Learning Algorithms for LULC Classification. <i>Geospatial Information Science journal</i> .

CONFERENCE PRESENTATIONS

2025

Prince Obosu, John Maingi, Mary Henry, Shenyue Jia, Robbyn Abbitt, Varun Goel, Pius Appau, and Rhony Ochieng. Predicting Malaria Prevalence in the Ashanti Region: A Machine Learning Approach. *American Association of Geographers Conference, Detroit, Michigan.*

TEACHING EXPERIENCES

Miami University, Oxford, Ohio

Fall 2023 – Spring 2024 **Teaching Assistant, Geography of Urban Development (GEO 201)**

- Assisted students in understanding concepts they found challenging in urban development.
- Graded and assessed students through class assignments, group projects, and semester exams.

Fall 2024 – Spring 2025 **Teaching Assistant, Global Forces and local diversity (GEO101) and Geography of Urban Development (GEO 201)**

- Assisted students in understanding concepts they found challenging in urban development.
- Graded and assessed students through class assignments, group projects, and semester exams.

Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

Fall 2022 – Summer 2023 **Teaching Assistant, Remote Sensing and Basic Principles of Surveying**

- Taught principles of Remote Sensing and provided laboratory instructions to students.
- Assistant student in the installation of Remote sensing software throughout the course.
- Graded and assessed students through class assignments, group projects, and semester exams.
- Taught basic principles of surveying during field practicals.

PROFESSIONAL EXPERIENCES

Assistant Surveyor, Town and Country Planning Department, Awutu Senya West Municipal Assembly, Ghana Sep 2021- Nov 2021

- Designed site plans for over 10 clients to enhance land title registration
- Visited over 20 land sites to pick land coordinates and ensure accurate land demarcations

Assistant Cartographer, Lands Commission of Ghana, Accra Sep 2020 – Nov 2020

- Created over 10+ maps to be distributed to various state ministries
- Contributed to the digitizing of maps for the Ghana Armed Forces.

NOTABLE DISTINCTIONS AND ACHIEVEMENTS

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| National Science Foundation EPSCoR Scholar, University of Maine, Orono, ME, | Jul 2025 – Present |
| Award Recipient, Summer Research Fellowship, Miami University, Oxford, OH | Summers 2024 and 2025 |
| Scholar, Ghana National Petroleum Corporation, Ghana | Aug 2018 – Sep 2023 |
| Scholar, Mary Oteng Foundation, Ghana | Feb 2016 – May 2018 |

CERTIFICATIONS AND LICENSES

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| Geographic Information System (GIS), Miami University, Oxford, OH | Aug 2025 |
| Research – Humans as Subjects IRB, CITI PROGRAM | Feb 2024 – Feb 2027 |
| Responsible Conduct of Research – Physical Science Responsible Conduct (CITI PROGRAM) | Feb 2024 – Feb 2028 |
| Data Analysis with Python (IBM) | Jan 2024 |
| Maps and the Geospatial Revolution ((Pennsylvanian state university- Coursera) | Dec 2022 |
| Spatial Analysis and Satellite Imagery in GIS (University of Toronto - Coursera) | Nov 2022 |

VOLUNTEERING AND PROJECTS UNDERTAKEN

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| Randolph Freed People Land Reclamation (https://randolph-freedpeople-project-miamioh.hub.arcgis.com/) | Spring 2025 |
| GIS Political Mapping, Ohio (Volunteering) | Fall 2024 |
| Characterizing Phenological Patterns of Vegetation Types along Elevation Gradient at Mt. Kasigau, Kenya | Fall 2024 |
| GIS Political Mapping Project, Ohio (Volunteering) | Mar 2024 |

- 2030 Predictive land use land cover (Butler County, Ohio) Dec 2023
- Suitability analysis of health facility allocation (Butler County, Ohio) Dec 2023
- Land use land cover classification in Google Earth Engine (Kumasi, Ghana) Apr 2023

RELEVANT SOFTWARES AND SKILLS

- **Geospatial & CAD Software:** QGIS, ArcGIS, ArcGIS pro, ENVI, IDRISI, Google earth pro, AutoCAD Civil 3D, Erdas Imagine
- **Data Analysis & Machine Learning:** NumPy, Pandas, Matplotlib, Scikit-Learn
- **Programming Languages:** Python, Google Earth Engine (JavaScript)
- **Geospatial & Surveying Technologies:** Drone Piloting, Total Station, Level Instrument, Global Positioning systems (GPS)
- **DATABASES:** PostgreSQL
- **Office Applications:** Microsoft Office (Word, Excel, PowerPoint)

SELECTED NEWS AND PRESS

1. Miami University News Letter (March 2025). "Miami University's 2025 Three Minute Thesis (3MT) Competition Winners". <https://miamioh.meritpages.com/stories/Miami-University-s-2025-Three-Minute-Thesis-3MT-Competition-winners/156136485>

PROFESSIONAL AFFILIATIONS AND EXTRA CURRICULUM

- American Association of Geographers (AAG) Fall 2024 - Present
- President, Swesco Alumni Student Organization (SOSA), Knust Nov 2022 – Jun 2023

REFERENCES

Available upon request