

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 Jul 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

Published

2025

Obosu, P. (2025). *Predicting Malaria Prevalence at The Regional and Local Level: A Case Study in The Ashanti Region of Ghana*. [Master's thesis, Miami University]. OhioLINK Electronic Theses and Dissertations Center.
http://rave.ohiolink.edu/etdc/view?acc_num=miami174964153859737 APA Style (7th edition)

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. *Malaria Journal*.

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. *Malaria Journal*.

2025

Prince Obosu, Christopher Atta Amponsah, Clifford Boateng, Augustine Abora Ofobi, and Thomas Liyajabale Waliba. Performance Comparison of Machine Learning Algorithms for LULC Classification. *Geospatial Information Science journal*.

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) <ul style="list-style-type: none">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 (GE0 201) <ul style="list-style-type: none">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 <ul style="list-style-type: none">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.
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PROFESSIONAL EXPERIENCES

Assistant Surveyor, Town and Country Planning Department, Awutu Senya West Municipal Assembly, Ghana	Sep 2021- Nov 2021 <ul style="list-style-type: none">Designed site plans for over 10 clients to enhance land title registrationVisited over 20 land sites to pick land coordinates and ensure accurate land demarcations
Assistant Cartographer, Lands Commission of Ghana, Accra	Sep 2020 – Nov 2020 <ul style="list-style-type: none">Created over 10+ maps to be distributed to various state ministriesContributed to the digitizing of maps for the Ghana Armed Forces.

NOTABLE DISTINCTIONS AND ACHIEVEMENTS

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

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

• 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
• 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
2. Ohio capital Journal (https://ohiocapitaljournal.com/2025/02/17/miami-university-students-map-the-land-in-ohio-that-the-randolph-freedpeople-lost/)

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