OLUWADAMILOLA DEBORAH SALAU

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EDUCATION

2022 – Pres.	Doctor of Philosophy in Geography The Ohio State University Lab: Climate Analytics Advisor: Professor Steven Quiring Dissertation Title: Assessing and predicting urban pluvial flooding occurrence and magnitude under changing climate.
2018 – 2020	M.S. Geography and Planning University of Lagos, Nigeria Advisor: Dr. Peter Elias Thesis Title: Effect of waste management practices on air quality and health conditions in some selected slum communities in Lagos, Nigeria
2013 – 2016	B.S. Geography and Planning University of Lagos, Nigeria Advisor: Dr. Peter Elias Thesis Title: Analysis of the impacts of gated communities on neighborhood quality and residential satisfaction. A case study of Akoka Lagos, Nigeria

RESEARCH EXPERIENCE

2023	**Research Assistant** Project Title: Harnessing geospatial intelligence for mitigating flood risk in Lagos Metropolis Advisor: Tobi Aiyelokun Synopsis: To determine the prevalence of flooding in Lagos metropolis and evaluate the root physical factors contributing to flooding aside extreme rainfall. Duties: Physical data collection of flooded areas, performing morphometric analysis, flow analysis, generating of design storm and hydrograph.

2022	**Research Assistant**
	<u>Project Title</u>: Derivation of bathymetric information from multi-spectral satellite imagery using machine learning algorithms
	<u>Advisor</u>: Tobi Aiyelokun
	<u>Synopsis</u>: To develop a novel algorithm capable of deriving bathymetric information from multi-spectral satellite imagery and predicting future changes in depth.
	<u>Duties</u>: Collection of bathymetric field data for model training, clean and preparation of data.
2019	**Lead Student Investigator**
	<u>Project Title</u>: Effect of waste management practices on air quality and health conditions in some selected slum communities in Lagos, Nigeria
	<u>Project Status</u>: Manuscript in preparation
	<u>Advisor</u>: Dr. Peter Elias
	<u>Synopsis</u>: To understand the extent of wastes produced in the communities and how the wastes generated are managed.
	<u>Duties</u>: Conceptualized the project idea, reviewed the literature, wrote the research proposal, and data collection using questionnaire and pollutant meters.

MANUSCRIPT IN REVIEW & IN PREPARATION

Aiyelokun, Oluwatobi, Ogunsanwo, Gbenga, Pham, Quoc Bao, **Salau, OD**, Eguagie-Suyi , P.O. (2014) Bias Reduction of CFSR with Random Forest for Applications in Water Resources Modeling in Ogun River. *Submitted to the Hydrological Sciences Journal*.

Igwebuike N., Clarke S., Muchingami I., Chunga B., Kanyerere T., **Salau OD.** Application of Hydrogeophysics for Managed Aquifer Recharge Scheme in a Coastal Setting: A Southern Africa Review on Applications, Challenges and Possible Future Research Directions *In prep* for Hydrogeology Journal.

Sukanya Dasgupta, Elaina Gonsoroski, Marija Verner, Andy Zimmer, Subhashni Raj, **Salau O.D** & Zhan Wang (2023) Margins of Adaptation to Human Heat Stress: Local, National, and Global Socioeconomic Responses. *In prep* for Nature Climate Change

Salau OD & Elias P. Effect of waste management practices on air quality and health conditions in selected slum communities in Lagos. *In prep* for Urban Forum.

CONFERENCE PAPERS AND PRESENTATIONS

2024	**Oluwadamilola Salau** & Steven Quiring (2024) Bridging the Gap: Towards an Updated Flood Risk Map for Columbus. Poster presentation at the CaGIS + UCGIS Symposium 2024.
2024	**Oluwadamilola Salau** (2024) Evaluating Urban Pluvial Flood Risk in Columbus, Ohio. Contributed paper presented at the 2024 Hayes Forum.
2023	**Salau O.D** and S. M. Quiring (2023) Redefining Flood Vulnerability: Urban Pluvial Flood Risk in Columbus, Ohio. Contributed paper presented at the 2023 Annual Meeting of the East Lake Division of the American Association of Geographers, Toledo OH, November 2023.
2023	**Salau, O.D** and S. M. Quiring (2023) Beyond Water Bodies: Urban Pluvial Flood Risk in Columbus, Ohio. Contributed poster presented at the 2023 Interdisciplinary Research Fall Forum, Columbus, OH, November 2023. https://geography.osu.edu/news/geography-grads-present-their-work-2023-tdai-research-forum
2023	**Oluwadamilola Salau** (2023) Urban Pluvial Floods: The Neglected Disaster. Contributed poster presented at the 2023 Engaged Scholarship Symposium, Columbus, OH, November 2023. https://kb.osu.edu/handle/1811/103643
2023	Sukanya Dasgupta, Elaina Gonsoroski, Marija Verner, Andy Zimmer, Subhashni Raj, **Salau O.D** & Zhan Wang (2023) Margins of Adaptation to Human Heat Stress: Local, National, and Global Socioeconomic Responses. Contributed paper presented at the IGUIDE Forum 2023 themed Harnessing the Geospatial Data Revolution for Sustainability Solutions, New York, October 2023. https://youtu.be/KXFnYM3QcQ8?si=Oyv8NvY0uGMn6ZF5

GRANTS & FELLOWSHIPS

2024	International Research and Scholarship Grant ($3,500)
2024	Rayner Scholarship for Field Work ($2,500)
2023	Lakshmanan Chatterjee Fellowship ($3500)

2023	NSF I-GUIDE Travel Grant ($3,000)
2022	OSU University Fellowship ($63,000)

HONORS, AWARDS & RECOGNITION

2024	**Student Scholarship** CaGIS + UCGIS Symposium 2024
2024	**Honorary Award** The 2024 Hayes Forum Research Competition.
2023	**Best Poster Award** Translational Data Analytics Institute (TDAI) 2023 Engaged Scholarship Symposium Poster Competition. [Geography grads present their work at the 2023 TDAI Research Forum	Department of Geography (osu.edu)](#)
2023	**NSF I-GUIDE Outstanding Project Award** I-GUIDE Summer School, UCAR, Boulder, Colorado, August 2023. Team project (Margins of adaptation to human heat stress: local, national, and global socioeconomic responses) was selected for the Summer School 2023 Award in a juried competition.
2015 – 2016	**Award of Excellence** Awarded by the CELELAG Student Fellowship to the final year student with the highest cumulative weighted average in the Faculty of Social Sciences, University of Lagos.
2013 – 2016	**Endowment Award** Awarded by the University of Lagos to first class honors student every session.

CERTIFICATION

2024	Certification in Practice of Data Analytics: Introductory Statistics for Data Analytics
2023	Erdos Data Science Bootcamp Certification
2022	Certificate of Drone and Data Technology (CDDT) Level 1
2022	AUVSI Trusted Operator Program Certification
2022	AuthorAID Research Writing in the Sciences Certification

PROFESSIONAL DEVELOPMENT ACTIVITIES

2023	11th Annual Preparing for the Professoriate and Beyond Retreat.
2023	Fourth Annual ASC Career Success Diversity Case Study Competition. (4th Position)

PROFESSIONAL EXPERIENCE

2024   **Floodplain Management Program Intern**
Ohio Department of Natural Resources, Ohio, US
Duties: Downloading discharge and peak flow data, updating peak flow data for flood analysis, and assessing flood frequency characteristics for streams in Ohio, Indiana, and Kentucky. Estimating flood annual exceedance probabilities over various return periods and writing the study's findings.

2020 – 2022   **Geospatial Intelligence Analyst**
Observatory Earth Analytic Consults, Magodo Lagos
Duties: Collection of imageries, classification and analysis of images, hydrological analysis, use of ArcMap and QGIS for geospatial analyses. Spatial data analysis, mining and visualization. Web development using HTML, CSS, and development of application using Python, SQL and Flask.

2017 – 2018   **Research Assistant**
Department of Entrepreneurial Studies, NOUN
Duties: Supervision of undergraduate projects, writing research proposals and abstracts, appraising and reviewing of articles, drafting memos and administrative management.

2015 – 2016   **Geographic Information Systems Junior Analyst**
GIS and RS Laboratory Geography Department UNILAG
Duties: Analyzing spatial data through the use of ArcMap 10.2 mapping software, digitizing of features, discovering patterns and trends through spatial mapping of data, producing maps showing spatial distribution of various kinds of data and satellite image classification and analysis.

TEACHING EXPERIENCE

2023 - 2024	**Graduate Teaching Assistant** GEOG 1900 Extreme Weather and Climate <u>Duties</u>: Tutorial and practical illustration of lab experiments. Grading of assignments, tests and labs.
2021	**GIS Facilitator** African Women in GIS – GIS Master Class Training for beginners <u>Duties</u>: Tutorial and practical illustration of geo-referencing, creation of shapefiles, digitizing of features, and map composition using Quantum GIS (QGIS).
2016 – 2017	**GIS Tutor** <u>Duties</u>: Taught students map geo-referencing, creation of shapefiles, digitizing of features, map composition, image classification and land use land cover analysis using ArcGIS.
2013 – 2016	**Geography Private Tutor** Faculty of Social Sciences, University of Lagos <u>Duties</u>: Taught students introduction to physical geography, basin geometry and map composition.

SKILLS

GIS Software	ArcGIS and QGIS
Programming language	Python and R
Database management	SQL
Hydrologic Software	Arc Hydro, QSWAT, SAGA, GRASS, HEC GeoHMS
Application development	HTML, CSS, and Bootstrap
Data science packages	Python and R
Others	Drone piloting, SPSS, Google Earth Engine (GEE), AutoCAD, Kobo toolbox, Microsoft Office (Microsoft Word, Microsoft Excel, and Microsoft PowerPoint)

DEPARTMENT LEADERSHIP & SERVICES

2024	**President** Geography Graduate Organization Ohio State University Duties: Spearheading activities of the organization.
2023	**Faculty Meeting Representative** Geography Graduate Organization OSU Duties: Represented the graduate students at faculty meetings.
2012 – 2016	**Assistant Class Representative** Duties: Represented students at department council meetings, ensure students' views regarding academic matters are appropriately channeled.
2012 – 2013	**Class Representative** Class advisor: Dr. Vide Adedayo Duties: Express student concerns/issues to the class tutor, represent class at department student council meetings, ensure students' views regarding academic matters are appropriately channeled, and ensure that the relevant reading materials and information get to students on time.

INVITED TALKS

2021	**GeoAI for Extreme Events** Organization: GeoSakhi Masterclass

VOLUNTEERING \ COMMUNITY SERVICE

2022 – Pres.	**Director of Education Programs** (Volunteer) STEM for Development NGO Duties: Leading the educational outreach, webinars, and mentoring of STEM students from developing countries.
2023	**Student Volunteer** Conference: GIS-Pro 2023 Organization: URISA Duties: Assisted in coordinating the hands-on GIS workshop using ArcGIS pro and online.
2021	**Facilitator** Title: Free GIS Master Class Training for Beginners Organization: African Women in GIS (AWiGIS)

Duties: Organized practical sessions on the use of Quantum GIS software for geo-referencing and map creation.
Attendance: 200 participants

2016   **Student Representative**
Program: 2016 Annual Conference
Organization: Association of Nigerian Geographers (ANG)
Duties: Attended and participated in all the conference events and handled students' welfare.

2014   **Student Representative**
Program: Climate Change Conference
Organization: Geography Department University of Lagos Akoka
Duties: Coordinated the collection of presentation slides and distribution of conference materials.

PROFESSIONAL AND ACADEMIC AFFILIATIONS

2024 – Pres.	American Geophysical Union (AGU)
2022 – Pres.	American Association of Geographers (AAG)
2020 – Pres.	African Women in GIS (AWGIS)
2013 – 2021	Association of Nigerian Geographers (ANG)
2013 – 2017	National Association of Geographers (NAGS)