

## EDUCATION

- **University of Notre Dame** Indiana, United States  
• *Doctorate (PhD.) - Civil & Environmental Engineering and Earth Sciences.* 2020 - 2024
  - **Dissertation:** *The influence of multiscale surface anomalies on hurricane rapid intensification.*
  - **Advisor:** *Prof. David H. Richter.*
- **International Center for Theoretical Physics (ICTP)** Trieste, Italy  
• *Postgraduate (Pre-PhD.) in Earth Systems Physics.* 2019 - 2020
- **African Institute for Mathematical Sciences** Kigali, Rwanda  
• *Masters (MSc.) in Mathematical Sciences* 2018 - 2019
- **University of Lagos** Lagos, Nigeria  
• *Bachelor's (BSc.) in Geophysics; GPA: 4.74/5.0; Top 1%* 2012 - 2017

## SKILLS SUMMARY

- **Proficient:** Python, FORTRAN, Shell Scripting, MATLAB, SQL, R.
- **Experienced:** Numpy/Scipy stack, Pangeo, Tensorflow/Keras, xarray, Matplotlib, CDO, NCL/NCO, GRADS, Ferret.
- **Familiar:** High performance computing (MPI), Cloud Computing (AWS), Git, Satellite Intelligence.
- **Climate Models:** WRF, CM1.

## RESEARCH FOCUS

Hurricane modeling & air-sea interaction, Large Eddy Simulation (LES), Numerical weather prediction (NWP), Satellite data analysis, ARGO/ALAMO float data analysis, Machine Learning, Geostatistics and spatio-temporal modelling.

## PROFESSIONAL EXPERIENCE

- **National Center for Atmospheric Research (NCAR)** Boulder, Colorado  
• *Graduate Visiting Scientist, ASP (Host: Dr. George Bryan, MMM lab.)* Aug 2022 - Jan 2023
  - LES of hurricane boundary layer forced with spatial heterogeneities in the eye-eyewall region.
- **Indicina Inc.** Remote  
• *Data Engineer (Part-time, Contractual)* Sept 2018 - Sept 2019
  - Building and optimizing machine learning models for large fintech dataset.
- **KPMG Inc.** Lagos, Nigeria  
• *Datascience Intern* Feb 2018 - Aug 2018
  - Built and deployed a machine learning churn model as REST API for default forecast.
- **Carbon Inc.** Lagos, Nigeria  
• *Datascience Intern* Nov 2017 - Jan 2018
  - Adapted machine learning models on AWS services.

## GRANTS AND FELLOWSHIPS

- NCAR Fellowship (\$15,750) - Advanced Study Program (ASP) graduate visitor - 2022.
- American Meteorological Society (AMS) air-sea interaction committee - 2022 to 2024.
- UNESCO/IAEA Study Grant - International Centre for Theoretical Physics - 2019.
- AAPG - L. Austin Weeks foundation scholarship grant - 2017.
- MTN Foundation Scholarship for outstanding academic performance - 2012 to 2017.

## SELECTED PAPERS

- **Chibueze N. Oguejiofor\* and Graziano Giuliani, 2020** Local and Non-Local planetary boundary layer (PBL) schemes in WRF model -Impact on the Intensification of Tropical cyclone Idai (preprint - thesis)
- **Chibueze N. Oguejiofor\* and Babatunde J. Abiodun, 2019** Simulating the influence of sea-surface-temperature (SST) on tropical cyclones over South-West Indian ocean, using the UEMS-WRF regional climate model (preprint - arXiv)

## CONFERENCES

- **Chibueze, N. Oguejiofor\*, D. Richter, and C. Wainwright, 2022:** Investigating the sensitivity of hurricane intensification to length scales of sea surface temperature (SST) heterogeneities. **35th Conference on Hurricanes and Tropical Meteorology (AMS)**, New Orleans.
- **Chibueze, N. Oguejiofor\*, D. Richter, and C. Wainwright, 2022:** Investigating the dependence of hurricane intensity on varying SST patterns using idealized model simulations. **Ocean Sciences Meeting (OSM)**, held virtually.
- **Chibueze, N. Oguejiofor\*, D. Richter, and C. Wainwright, 2021:** Investigating the dependence of hurricane intensity on varying SST patterns using idealized model simulations. **American Geophysical Union (AGU)**, Fall meeting, New Orleans.