Aramide MORONFOYE

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Science Blog: deepwaterlearning.com
Nationality: Nigerian

EDUCATION

PhD in Civil Engineering (Water Resources Engineering and Science), University of Illinois at Urbana-Champaign [August 2021 – present]

Master of Research (M2) in Exploration Geophysics, Université de Paris, France (specifically within the Institut de Physique du Globe de Paris + former Paris-Didérot University- Paris VII) [September 2017 – June 2018]. Graduation with honors (***Assez Bien***).

Bachelor of Science in Geophysics, Texas A&M University (TAMU), College Station, Texas, USA. [August 2013 – May 2017]. Graduation with honors **(*Cum Laude)***

Relevant Course Work and Skills

Hydrogeophysics – Data Acquisition – Geostatistics – Computer Programming – Numerical Modeling – Electromagnetics – Reservoir Petrophysics –Sedimentology & Stratigraphy – Site Remediation – Structural Geology

LINGUISTIC AND COMPUTER SKILLS

Proficient in Matlab, Seismic Unix, Fortran, Java and Python

- **English**: First Language
- **French:** Advanced Fluency – Writing and Speech
- **Yoruba**: Intermediate Fluency – Writing and Speech

WORK AND RESEARCH EXPERIENCE

Geoterrain Nigeria Limited, Nigeria (December 2018 – November 2019)
Geoscientist

Key Achievements

- Developed new processing workflows for ground penetrating radar (GPR) data in soil remediation
- Successfully identified the mechanisms and migration direction of hydrocarbon pollutants using geochemical, electrical and electromagnetic methods
- Generated a novel regional mapping of groundwater seal across 70km in the Eastern Niger Delta (Project report presently being used as company reference material) using Google Earth, petrophysics and GPR
- Effectively researched and documented a new company guide for more efficient processing and interpretation of petrophysical data towards the identification of hydrocarbons and groundwater.

Responsibilities

- Java programming to manage and compile large amounts of stratigraphic and lithological data
- Subsurface interpretation and research via electrical resistivity methods and petrophysical tools
- Hydrogeological and geochemical assessment of crude oil impacted sites using soil and water samples
- Research on seismic interpretation methods in the Niger Delta

CGG, Massy, France (February 2018 – July 2018)
Intern in Research and Development Dept. (Seismic Imaging) under Dr. Thibaut Allemand

Key Achievement

- Successfully implemented efficient, comprehensive algorithm for Global Optimisation (Markov Chain Monte Carlo method) using full-waveform Inversion (FWI) velocity modelling of synthetic seismic data

Responsibilities

- Extensive Fortran programming of Global FWI for 1D velocity modelling, using probabilistic approach (Monte Carlo simulation) and geostatistics
- Teamwork and collaboration with CGG geoscientists
- Reviewed scientific articles for publishing

TAMU, Department of Geophysics, (2015-2017)
Undergraduate Research Assistant, under Dr. Richard Gibson (2015-2016) and Dr. Benchun Duan (2016-2017)

- Performed comparative analysis in Mathematica with the mathematical entity: Wasserstein Distance, a distance function that is useful in full-waveform inversion.
- Investigated moment tensor inversion to monitor microseismicity generated from hydraulic fracturing in shale gas reservoirs.

Stanford University, Department of Geophysics, (2016)
Summer Undergraduate Research Intern under Dr. Simon Klemperer and Dr. Shuki Ronen

Key Achievements

- Developed 1D P and S wave velocity models using ocean bottom seismic data
- Processed seismic refraction arrivals with C programming in Seismic Unix and modified program to account for subtle P-S wave conversions
- Successfully presented PowerPoint and poster at Stanford Earth Science Symposium
- Research poster presented at **the AGU meeting December 2016**

Responsibilities

- Research review in marine seismology and collaboration with geophysics faculty
- Preparation of research progress presentations as requested

TEACHING EXPERIENCE

Acetutors, Abu Dhabi. Virtual Tutor for French, English, Calculus and Physics. (October 2020 – February 2020)

AWARDS AND ACHIEVEMENTS

- Distinguished Student, Geology and Geophysics Department, TAMU
- Dean's List Scholar, Geology and Geophysics Department, TAMU
- Winner of Texas Association of Creative Writing Teachers Fiction Award 2016
- International Texas Public Education Grant (TPEG) (2016 - 2017)
- Winner of the Gordone Awards in Non-Fiction 2017

HOBBIES & VOLUNTEERING

Hobbies

- Playing the cello (2+ years)
- Organizing educational events
- Learning foreign languages
- Reading and Creative Writing

Volunteering

- **Lagos State General Secretary** in the Educating Nigerian Girls in New Enterprises (ENGINE) program; an initiative of the Mercy Corps Organization. [2018 – 2019]
- **Book club leader** at several Nigerian secondary schools to encourage a joy for literature amongst underserved Nigerian teens; an initiative of the Ignite Africa Place