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EDUCATION

King Fahd University of Petroleum and Minerals (KFUPM), Saudi Arabia

Aug. 2022 – Dec. 2024

Master of Science in Geophysics | GPA: 3.875/4

Relevant Courses: Reflection Seismology, Seismic Data Analysis, Seismic Imaging, Geophysical Wave Propagation, Geophysical Signal Analysis, Theoretical Seismology, Numerical Modelling.

University of Ilorin, Ilorin, Nigeria

Sept. 2015 – Oct. 2019

Bachelor of Science in Applied Geophysics | Distinction | CGPA: 4.52/5.0 | Class Rank: 1/52

RESEARCH EXPERIENCE

Research Assistant (PT), King Abdullah City for Science and Technology (KACST)

Jan. 2024 – Dec. 2024

Technology Development Grant (TDG), Saudi Applied Research and Technology Initiative (2024 - 2029)

PI: Dr Abdulrahman Aljurbua (KACST) Co-PI: Prof. Abdullatif Al-Shuhail (KFUPM), Prof. Hussein Nasser Shaman (KACST)

- Participated in the designing, prototyping, and testing of antennas for Multistatic SAR (MSSAR) applications, to ensure optimal performance and reliability. This is for a technology development project titled “*Autonomous Near Ground Sensors for Underground Exploration*” awarded by Saudi Arabia’s Research Development and Innovation Authority (RDIA).
- Collaborated with cross-functional teams to integrate the antenna system into the MSSAR platform, ensuring that the latter would be compatible with the existing technology and systems.

TEACHING EXPERIENCE

Graduate Teaching Assistant, College of Petroleum engineering and Geosciences (CPG-KFUPM)

2023 – 2024

King Fahd University of Petroleum and Minerals (KFUPM)

- Assisted college professors in class activities while also attending to students’ needs.
- Supervised geophysical equipment and field demonstrations for undergraduate students.
- Taught undergraduate and graduate student introduction to seismic data processing using Seismic Unix (SU)

Freelance Academic Tutor

2020 – 2022

- Organized paid tutorial and one-on-one classes for high school students who were preparing for their Senior Secondary School Certificate Exam (SSCE) (WAEC and NECO).
- Evaluated students’ progress and discussed the results with students and/or their parents.
- Worked with students to improve their understanding in certain subjects.

Tutorial Coordinator, Department of Applied Geophysics

2016 – 2019

University of Ilorin, Ilorin, Nigeria

- Organized tutorial classes together with senior colleagues for applied geophysics students
- Taught and facilitated tutorial sessions for geophysics courses.
- Mentored and Counseled geophysics students (Juniors and Sophomores) to ensure a hitch-free undergraduate experience.

POSTERS AND ORAL PRESENTATIONS

**Represents equal contribution*

P. Edigbue, **H. Oyekan**, A. Al-Shuhail, and S. Hanafy, “Hybrid optimization for DC resistivity imaging via intelligible-in-time logic and the interior point method,” *Sci Rep*, vol. 14, no. 1, p. 27558, Nov. 2024, <https://doi.org/10.1038/s41598-024-78744-1>.

Oyekan, H. “Depth to Magnetic Source Estimation Using TDX Contours”, in 85th *EAGE Annual Conference & Exhibition*, Oslo, Norway, European Association of Geoscientists & Engineers, 2024, pp. 1–5. <https://doi.org/10.3997/2214-4609.2024101566>.

Oyekan, H.* & Al-Qahtani, A.* (May 2023). Velocity Model Building Using FWI: A case study of the 2D North Viking Graben Dataset. Semester Project for Seismic Imaging Course (GEOP 647)

Oyekan, H. Surface displacement and deformation study of the Mw 7.8 Pazarcik and Mw 7.5 Elbistan earthquake, Kahramanmaras earthquake sequence using Satellite SAR data. Solid Earth Geophysics (GEOP 503) Semester Project

ADDITIONAL COURSES FOR PROFESSIONAL DEVELOPMENT

Supervised Machine Learning: Regression and Classification, [DeepLearning.AI](#)

2024

Linear Algebra for Machine Learning and Data Science, DeepLearning.AI	2024
Introduction to Python Programming, Coursera	2024
Introduction to Data Science, CISCO Networking Academy	2024
R Studio Basics, <i>Great Learning</i>	2023
Introduction to Petroleum Engineering, Coursera	2022
How to Write and Publish a Scientific Paper (Project-Centered Course), Coursera	2022
Microsoft Excel Zero to Hero for Data Analysis, <i>Udemy</i>	2022
MATLAB Onramp: <i>MathWorks Training Services</i>	2022
Introduction to Drilling, and Well Servicing, <i>LearnToDrill</i>	2020

WORK EXPERIENCE

Field Geophysicist May 2018 – Nov 2018
Undergraduate Internship

- Worked closely on-site with senior geologists to conduct more than a hundred geophysical survey investigations for groundwater exploration and geotechnical application.
- Used different array methods to collect electrical resistivity, magnetic, and IP data on the field and prepared them for processing and interpretation under the guidance and supervision of a senior geologist.
- Processed and Interpreted geophysical data using open source and in-house softwares.

LEADERSHIP AND VOLUNTEERING EXPERIENCE

Group Coordinator Feb. 2024
Our Sustainable Environment Program, KFUPM Volunteering Day

- In a daylong event-packed activity, I and my group participated in caring for the vegetation, general cleaning of the environment, including public beaches, and planting over 1000 trees to tackle climate change impacts in line with Saudi Green Initiatives.

Facilitator Dec 2019 – Mar. 2020
Sustainable Development's Community Development Service Group

- Co-volunteered with my group to achieve one of the goals of the Millennium Development Goal (MDG) - Good health and sanitation.
- Sensitized members of the local community on the need for good health and sanitation through a staged campaign and the sharing of printed sticker posters.

Academic Tutor and mentor 2016 – 2019
Tutorial Coordinator, University of Ilorin, Ilorin, Nigeria.

- Tutored students in the Department of Applied Geophysics, assisting them in overcoming challenges in core courses, achieving academic success, and navigating a seamless undergraduate experience.
- Mentored first-year freshmen and sophomores on the benefits of academic excellence.

Student Leader, Mathematics Club, Winners International College, Oyo 2013 – 2014

SKILLS

Programming: Mathematica, Python

Technical: Seismic data processing, Geophysical Signal Analysis, Applied Math, Technical writing, Data science and Analysis, Numerical Modelling.

Tools: MS Office, LaTeX, Zotero

Software: Geosoft Oasis Montaj, Seismic Unix, SNAP

Soft Skills: Critical and Analytical thinking, Adaptability, Teamwork, Collaboration, Communication, Time Management, Multi-tasking, Emotional Intelligence.

SCHOLARSHIP, PRIZE, AWARDS AND RECOGNITIONS

- KFUPM-SEG Challenge Bowl, *CPG-KFUPM, Saudi Arabia (2023)*
- Fully Funded International MSc Scholarship Recipient, *CPG-KFUPM, Saudi Arabia (2022). Status: Accepted*
- Stipendium Hungaricum Bilateral Education Agreement Scholarship, *Hungary (2022). Status: Declined*
- Best Graduating Student, Department of Applied Geophysics, *University of Ilorin, Ilorin (2019)*
- Senate Award for Best Graduating Student, *University of Ilorin, Ilorin (2019)*
- University Scholar 2018/19 Academic Session, *University of Ilorin, Ilorin (2019)*
- Gold Medalist, Faculty of Physical Sciences Quiz Competition, *National Association of Physical Science Student (2019)*
- Undergraduate Scholarship Award, *University of Ilorin, Ilorin, Nigeria (2016 - 2019)*
- 1st Prize-Winner, Annual Mathematic Competition (Senior Level, Zonal Category), *Mathematical Assoc. of Nigeria (2013)*

- 2nd Prize-Winner, Annual Mathematic Competition (Senior Level, Local Category), *Mathematical Assoc. of Nigeria* (2013)
- Overall Best Senior Student, *Winners International College Alumni Students Union (now WAF)* (2012)