

Etinosa Osaro

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Quality-oriented professional with about 5 years of work experience and proven knowledge of petroleum engineering, chemical engineering, and software engineering. A dedicated worker with excellent communication, time management and computer skills.

EXPERIENCE

Graduate Research Assistant

University of Notre Dame, USA

May 2022 - Present

- Adsorption and diffusion of gases in Metal-organic framework (MOFs) research using Molecular simulations and machine learning. The use of molecular simulations and machine learning will aid the high-throughput screening of these MOFs.

Teaching Assistant (Numerical and Statistical Analysis)

University of Notre Dame

Jan 2023 – May 2023

- Held tutorials for undergraduate students to aid solving class project.
- Graded students' projects, homework and held office hours.
- Developed and graded high end code to solve chemical engineering industrial problems.

Teaching Assistant (Science of Materials Eng.)

University of Notre Dame, USA

Jan 2022 - May 2022

- As the teaching assistant of Science of Engineering Materials, I was responsible for holding office hours and helping the Professor in other class duties.
- Monitored students' progressive learning skills and reported findings to teacher.

Teaching Assistant (Chemical Eng. Laboratory)

University of Notre Dame, USA

Aug 2021 - Dec 2021

- As the assistant for the chemical engineering laboratory, I was responsible for helping students understand laboratory and experimental procedures, as well as ensuring safety in the laboratory. This led to improved grades across the student participations.
- Encouraged student independence and academic achievement by exploring new concepts and activities.

Lead Software & Machine Learning Engineering Manager

Max-Migold, Nigeria.

Aug 2020 - Jun 2021

- As the software developer I was responsible for the creation and optimization of company website and other software
- Led Data visualization and analysis of Stanbic IBTC Energy Audit using Python and Power-BI
- Development of high-end deep Learning models for electricity analysis for Lagos state, Nigeria
- Development of energy optimization and analysis software for use in Lagos state, Nigeria.

Technical (Reservoir, Production and Process) Intern

Oriental Energy Resources Limited, Nigeria

Aug 2018 - Dec 2018

- As the technical intern, my responsibilities, and achievements Production Optimization on three oil wells with BS&W issues, reservoir evaluation
- Development of deep learning models for the optimization of oil wells and reservoirs
- Development of an in-house software to timely oil well reservoir analysis which has been scaled up for commercial purposes.

EDUCATION

PhD In Chemical Engineering Candidate

University of Notre Dame, Indiana, USA.

*Expected graduation January
2025*

- Completed course work while attaining a GPA of 3.87 on a 4.00 scale.

BSc. Hons In Petroleum and Gas Engineering (Chemical and Petroleum Engineering)

University of Lagos, Lagos, Nigeria.

Jan 2019

- Graduated top 2% in the Chemical and Petroleum Engineering class of 2019 (GPA: 4.85/ 5.00)
- Featured in the chancellor's list for four consecutive years.

TECHNICAL SKILLS

- Full stack software and website development with HTML5, CSS, JavaScript, React, Django, C++, MongoDB, Flutter, WordPress, conductor, etc.
- Expert level Machine and Deep Learning with python
- Data analytics with SQL, Python, Tableau and PowerBI
- Product Management and Design (UI/UX)
- Expert level shell, bash and tcl scripting
- Monte Carlo simulations (Raspa)
- Molecular Dynamics simulations (Lammps, Gromacs, Amber, etc)
- Molecular Docking with Schrodinger
- DFT calculations

CERTIFICATIONS

- Health, Safety and Environmental (HSE)
- Certified Value Leader

AWARDS

- Notebaert Professional Development Fund by the University of Notre Dame (Graduate – 2023)
- Advancing Science Conference Grant for National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (2023)
- Notebaert Professional Development Fund by the University of Notre Dame (Graduate – 2022)
- Inaugural Lucy Family Institute scholar for outstanding research in using Machine Learning and Data-science to solve societal problems (Graduate – 2022)
- 2nd Best placed presentation for the Lucy Family Institute symposium open to all students at the University of Notre Dame (Graduate – 2022)
- Advancing Science Conference Grant for National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (2022)
- Presidential Award for Best Student Organization Leader in the University of Lagos (Undergraduate – 2019)
- Winner, Society of Petroleum Engineers Lagos Data Analytics Competition for using Machine Learning in Predicting Nigeria's Natural Gas Prices (Undergraduate- 2019)
- Recipient of the Petroleum Technology Development Fund (Undergraduate- 2016 through 2019)
- Recipient of the Agbami Scholarship Award (Undergraduate- 2015 through 2019)
- Dr Olumide Philips Scholarship Awardee for Top students in the Department (Undergraduate- 2018 and 2019)
- Leadership Award for Best Student Leader (Undergraduate- 2017 and 2019)
- Chancellor List: University of Lagos Merit Award for Top Students in the School (Undergraduate- 2015 through 2019)
- Award for Best Research Dissertation in the University of Lagos. (Undergraduate- 2019)

LEADERSHIP AND SERVICE

- Academic Affairs Committee Chair, Graduate Student Government (GSG), University of Notre Dame (Graduate studies – 2023/2024 year)
- Graduate student representative, University Council on Academic Technologies, University of Notre Dame (2023/2024 year)
- Graduate student representative, University Committee on Libraries, University of Notre Dame (2023/2024 year)
- Graduate Student Orientation Team Member (Lead - International Students Division), University of Notre Dame (Graduate studies – 2023/2024 year)
- Professional Development Co-Chair, Graduate Student Government (GSG), University of Notre Dame (Graduate studies – 2022/2023 year)
- Graduate student representative, Graduate School Professional Development Team, University of Notre Dame (2022/2023 year)
- Director for Internal Communications, Chemical and Biomolecular Engineering Symposium, University of Notre Dame (Graduate studies – 2022/2023 year)
- Graduate Student Orientation Team Member (International Students Division), University of Notre Dame (Graduate studies – 2022/2023 year)
- Convener and Founder, The Industry Discourse (TID) for The University of Lagos (2019 till present)
- President, The Society of Petroleum Engineers, the University of Lagos Chapter, 2018/2019 Session (Undergraduate studies)

- Head of Impact and Workshop Committee, The Academic Relations Body, Faculty of Engineering, The University of Lagos, 2017/2018 (Undergraduate studies)
- Vice President, The Society of Petroleum Engineers, The University of Lagos Chapter, 2016/2017 (Undergraduate studies)
- Head of Sponsorship committee, Professor Ayodele Awojobi Design Competition (PAADC), 2016/2017 (Undergraduate studies)

SELECTED PUBLICATIONS

- E. Osaro, K. Mukherjee, Y. Colón, Active learning evaluation, criteria analysis, and application recommendation on metal-organic frameworks. (<https://pubs.acs.org/doi/10.1021/acs.iecr.3c01589>)
- E. Osaro, V. Okorie, S. Alorinyo, Exploring the Usefulness of Gaussian Process Regression for the Prediction of Oil, Water and Gas Production Rates. (<https://www.researchgate.net/profile/Etinosa-Osaro/publication/>)
- K. Mukherjee, E. Osaro, Y. Colón Active learning for efficient navigation of multi-component gas adsorption landscapes in a MOF (<https://pubs.rsc.org/en/content/articlehtml/2023/dd/d3dd00106g>)
- E. Osaro, J. Fernando, D. Gomez-Gualdron, Y. Colón, Active Learning of alchemical adsorption simulations, towards a universal adsorption model (prepared and to be submitted to Nature – pre-submission enquiry has been accepted)
- E. Osaro and Y. Colon, A study on the self-diffusivities of pure and binary mixture gases in MOFs: active learning informed molecular dynamics (in preparation)

SELECTED CONFERENCES AND PRESENTATIONS

- Presentation at the First Year Symposium for Chemical and Biomolecular Engineering, University of Notre Dame, IN, USA (2022)
- Poster Presentation at the Chemical and Biomolecular Engineering Symposium, University of Notre Dame, IN, USA (2022)
- Poster Presentation at the National Organization of Black Chemists and Chemical Engineers Conference, FL, USA (2022)
- Presentation at Lucy Graduate Institute Symposium (2022)