KINGSLEY MADIEBO, PhD.

(US permanent resident)

Chicago, IL • +1 (323) 540-9476 • kingsley.madiebo@gmail.com

Experienced engineer possessing diverse expertise in applied statistics, machine learning, uncertainty quantification, numerical modeling, multiphase-physics and optimization.

EDUCATION

Texas A&M University, College Station, TX. PhD Petroleum Engineering. GPA – 4.0/4.0	December 2017
Georgia Institute of Technology, Atlanta, GA. MS Computer Science. GPA – 4.0/4.0	December 2025*(in view)*
University of Southern California, Los Angeles, CA. MS Petroleum Engineering. GPA – 3.7/4.0	August 2012
University of Lagos, Lagos. Nigeria. BS Chemical Engineering. GPA – 4.6/5.0 (Highest Honors)	November 2008

<u>**Graduate Certificates**</u>

North Carolina State University, Raleigh, NC. - Artificial Intelligence Associate	Jan 2022 - June 2022
North Carolina State University, Raleigh, NC. - Data Scientist certification	July 2021 - December 2021
Stanford University (via Coursera) – Machine Learning certification	July 2019

WORK EXPERIENCE

Honeywell, Des Plaines, IL
Snr. Advanced Research Scientist – Data Science
2023 – present

- Worked with the VP & Chief Technology Officer of Honeywell-UOP on a special project to evolve a strategic vision with respect to the research and implementation of statistical forecasting algorithm used for crude-oil refinery plant production of diesel. This provided insight into the performance of the catalysts we provided our customers. Thus, leading to efficient financial risk assessment for proper business development. This also led to two novel internal invention – disclosures.
- Led team of R&D engineers, R&D chemists and analytics engineers as part of a data-science task-force that aimed to explore new and creative applications of machine learning towards chemical plant performance improvement.
- Created new Bayesian statistics training modules as a new add-on for the mandatory technical development training curriculum for new R&D Honeywell-UOP employees.
- Developed novel analytics-tool for accurately quantifying yield estimate uncertainty using a combination of statistics, optimization, data-analytics leading to a method of quantitatively ascertaining the added economic value provided by our next-generation refinery technology

Advanced Research Scientist – Data Science
2020 – 2023

- Performed research as independent contributor on machine learning, parameter estimation, model discrimination and experimental design. All geared towards the use of data analytics for optimization of Honeywell-UOP chemical plants.
- Developed analytics tools to identify leading indicators and customer pain points using commercial data and internal domain knowledge
- Collaborated with software development teams to test/implement new software platforms and data analytics tools.

Lone Star College, Tomball, TX.
Adjunct Professor, Engineering & Petr. Data Technology
2020 – 2021

- Teaching the application and impact of data analytics in petroleum engineering during oilfield development.

Dassault Systèmes, San Francisco, CA.
Solution Consultant - Technology
2019 – 2019

- Developed codes in python and linux environment for computer aided engineering (CAE) tools and programming architecture based on data driven insight from digital rock analytics to create new predictive models
- Performed computational fluid dynamics (CFD) studies using the lattice Boltzmann method on a digital rock and applied it to fluid flow in porous media for improved rock physics and characterization. Analyzed the effects of enhanced oil recovery from reservoir simulation on 2D & 3D X-ray computed tomography (CT) spectroscopy digital rock imagery

Exa Corporation, Brisbane, CA.
Application Engineer
2018 – 2018

- Resolved computational physics problems related to digital rock CFD parameter computation encountered weekly by clients via Exa's cloud-based high-performance computing platform.
- Presented to management an innovative approach to handling complex digital rock data that reduced cloud-computing time of clients by 70%.

Texas A&M Engineering Experiment Station, College station, TX.
Research Assistant
2014 - 2017

- Investigated flow in porous media using a computational physics approach for the fluid dynamics simulation. Studied the flow deviation from continuum due to high Knudsen numbers.
- Supervised laboratory sessions on simulation/database (Enverus) software needed for petroleum data analysis.

Chevron Corporation, Houston, TX.
Simulation Research Engineer
2015 - 2015

- Conducted field scale optimization studies, specifically on subsurface uncertainty quantification of the Expected Ultimate Recovery (EUR) based on rate transient analysis (RTA) in unconventional reservoirs for accurate production forecasting and reservoir characterization.
- Designed and created computer program for quantifying the impact of additional reservoir data on EUR uncertainty analysis using data mining, machine learning and statistical analysis techniques for Permian asset.
- Developed workflow based on multivariate statistical analysis and supervised learning of earth sciences data for improved asset evaluation.
- Partnered with engineering team and business stakeholders to provide data driven technical solution for economic valuation of oil reservoir.

Schlumberger Technology Corporation, Tyler, TX.
DCS Field Engineer Trainee
2012 – 2013

- Assessed data obtained from wells and performed formation evaluation. Presented results to senior engineering management.
- Performed wireline openhole, acquisition of real-time data and on-the-job technical troubleshooting.
- Planned and executed rig jobs independently. This included aspects like wireline equipment set-up and tool requisition and procurement.

Afren Resources (Exploration & Production co.), Woodlands, TX.
Reservoir Engineer Intern
2012 – 2012

- Designed production data handler software program with VBA that reduced analysis time from 1hr to ~10mins, to keep up with fast-paced gas-production environment.
- Diagnosed gas lift effect on production of offshore asset and developed quick-decision-making sensitivity chart impacting project KPIs.

Niger Insurance llc, Ogun. Nigeria
Finance / Marketing Analyst, Oil and gas department
2009 – 2010

- Forecasted oil market trends that would affect underwriting results of energy clients. Also gave informed recommendations.
- Developed model for systematic rate and insurance premium computation for clients' assets. Simplified this process significantly.

Emerald Energy Resources Ltd (Exploration and Production co.), Victoria Island. Nigeria.
Reservoir Engineer
2007 – 2007

- Interpreted well logs and performed basic formation evaluation from the Niger-Delta region.
- Developed IPR's for production optimization forecasts: P-10, P-50 and P-90 scenarios. Reduced analysis time by 15

TECHNICAL SKILLS

Programming/Scripting Languages: Python, Java, Kotlin, Linux/Unix, C++, MS Excel VBA
Software: Python, Linux/Unix, Matlab, C++, Octave, Minitab, Weka, LAMMPS, VMD, Avizo, MS Excel VBA, Fiji (ImageJ), Fortran, TechLog, Tensorflow, MPI, Eclipse, SPSS, JMP, Oracle crystal ball, Spotfire, Abaqus, PHDWin
Data Analytics: Tensorflow, PyTorch, Keras, Scikit-learn, NLTK, Pandas, Numpy, Jupyter Notebook, Google Colab.
RELEVANT COURSEWORK:

Intelligent Oilfield characterization – Artificial Neural Network	Advanced Oilfield Remote Visualization and Control	Smart Oilfield Data Mining & Thermodynamics	Software Architecture and Design

HONORS, AWARDS & PROFESSIONAL MEMBERSHIPS

USC Graduate scholarship award	May 2011 –May 2012
King's College Lagos Leadership award - Longest serving class captain/representative (1996 – 2002)	May 2002
USC Minority Engineering Graduate Association (MEGA) – Treasurer	May 2011 – May 2012
National Society of Black Engineers (NSBE)	February 2011 – present

PUBLICATIONS – *Upon request*