ADJEI-AMPAH, Collins

| +1 (572) 2359170 | | LinkedIn: www.linkedin.com/in/collins-adjei-ampah99| email: collins.adjeiampah-1@ou.edu|
308 Wadsack Dr Norman | OK 73072 |

PROFILE

I am a results-driven, hardworking Petroleum Engineer with Bachelor and Master of Science in Petroleum Engineering, over six years of experience in both industry and research work related to reservoir simulation, drilling optimization, production analytics, surfactant chemical formulations, and oil recovery. I am passionate about the oil and gas energy industry. I am academically distinguished with a GPA of 4.0/4.0 and well-equipped with software suites like Eclipse, Prosper, Petrel, SEM, Python Jupyter Notebook, CMG, and Spyder. Skilled at leveraging Python, Jupyter notebook-based data analytics to help in accurate predictions of petroleum engineering and streamline processes. My strong technical foundation is complemented by proven leadership and a data-driven mindset, critical innovations, goal-oriented, quick adaptation, and proactiveness, making me well-equipped to take on dynamic internships, senior, entry-level, and higher roles that demand creative problem-solving and practical contributions to industrial challenges.

EDUCATION

Master of Science in Petroleum Engineering
University of Oklahoma, Norman, OK
August 2024 – Present
GPA: 4.0
Graduation date: May 2026
Bachelor of Science in Petroleum Engineering (First Class Honors)
Kwame Nkrumah University of Science and Technology (KNUST), Ghana
August 2018 – September 2022
CWA: 73.25

TECHNICAL SKILLS & TOOLS

Software Expertise - Microsoft Office Suite, AutoCAD, Scanning Electron Microscopy (SEM), Spyder
Simulation and Modeling - Eclipse Reservoir Simulator, Prosper, MATLAB, CMG
Data Analytics - Python for Data Analysis (Data Science, AI, and Development)
Analytical Techniques - FTIR, Rheological Analysis, Particle Size Analysis, Uniaxial Testing
Field/Industry Operations - Pipeline Pressure Gauge Reporting, Offloading Operations, HSSE

ENGINEERING FUNDAMENTALS

Production Optimization, Natural Gas Management, R&D Management, Well Testing and PVT Analysis, Pressure Transient Analysis, Material Balance, Decline Curve Analysis, Reservoir Stimulation and simulation.

RESEARCH AND WORK EXPERIENCE

Graduate Research Assistant – University of Oklahoma
Norman, OK | August 2024 – Present

- Developed advanced chemical microemulsion formulations and viscoelastic surfactant solutions that can withstand reservoir stress and prevent reservoir formation damage that previous chemicals failed to achieve
- Developed microemulsion systems that improved the recovery factor by 1.4x – 4.8x as compared to the initial slug chemical.
- Developed low weight percent surfactant binary systems, conducting rigorous rheological testing, measuring viscosity and viscoelasticity under varying temperatures and shear stress, optimizing fluid properties, and cost optimization for the formulations.
- Continuously developing ultra-low interfacial tension microemulsions that helped to mobilize residual oil at a very low cost.

Undergraduate Research – Enhanced Cementing with Ghanaian Clays
KNUST, Ghana | January 2022 – August 2022

- Executed FTIR-based dehydroxylation analyses and particle size examinations on clays for potential use as supplementary cementitious materials in oil well cementing.
- Performed uniaxial compressive strength tests on cured cement mixes to validate mechanical performance improvements. The cementitious materials helped to improve compressive strength by magnitude of 1421 psia.

Oil Well Simulation & Modeling Engineer – *Kwame Nkrumah University of Science and Technology (KNUST), Ghana*
KNUST, Ghana | March 2022 – April 2022

- Led a team using Eclipse simulation software to model an oil reservoir with active wells, conducting history matching and production forecasting. This optimized reservoir development strategy improves predictive accuracy for future extraction and enhances decision-making in field operations.
- Evaluated well performance through Inflow Performance Relationship (IPR) and Tubing Performance Relationship analysis, identifying bottlenecks and optimizing well productivity. This resulted in refined production strategies that increased efficiency and maximized recovery rates by 3-5 times.
- Estimated Absolute Oil Flow (AOF) to determine optimal operational parameters and production efficiency. This allowed for precise adjustments in well operations, reducing inefficiencies and enhancing output sustainability for long-term reservoir performance giving a range of operational flow rates.

Facilities and Operation Engineer Undergraduate Trainee – Ghana Gas
Ghana | November 2022 – 2023

- Operated as a pivotal member of the field operations team, overseeing and optimizing pipeline system designs and instrumentation applications that helped to improve safety storage and distribution of processed gas streams.
- Supervised technical staff while integrating real-time diagnostic data to ensure optimized production to minimize cost.
- Generated pipeline pressure gauge reports and analyzed operational findings to drive incremental design improvements and process optimizations.

Industrial Facilities Engineering Intern – Kumasi Bulk Oil Storage and Transport (BOST)
Ghana | July 2019 – September 2019

- Collaborated within the facility operating team, meticulously inspecting transport channels and pressure gauges to uphold strict operational standards.
- Prepared comprehensive pipeline and storage tank performance reports to support engineering analyses. This helped to reduce operational costs by significant amount.
- Actively participated in offloading operations, ensuring compliance with safety and quality standards through detailed inspections.

Volunteer – Society of Petroleum Engineers (SPE), KNUST Chapter
Ghana | January 2024 – June 2024

- Provided technical tutoring to undergraduates, enhancing their understanding of core petroleum engineering principles.
- Played a central role in organizing technical seminars, workshops, and educational outreach initiatives to foster industry knowledge.

PROFESSIONAL CERTIFICATES

- Oil and Gas Operation and Markets – Duke University (2022)
- Natural Gas – Buffalo University (2023)
- Exploring Renewable Energy Schemes – University of Pennsylvania (2023)
- Safety in the Utility Industry – University of Buffalo (2023)
- Lean Six Sigma White Belt (2023)
- Python for Data Science, AI & Development – IBM (2023)

PROFESSIONAL AFFILIATIONS

- Society of Petroleum Engineers (SPE) – University of Oklahoma Chapter

REFERENCE

Available upon request