

OBIKWELU CHIBUIKEM FRANCIS

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PROFESSIONAL SUMMARY

Chemical Engineer skilled in laboratory activities, produced water management, and wastewater treatment. Currently pursuing M.Eng. at Laurentian University with research focus on wastewater treatment removal and waste-to-energy systems. Fully authorized to work in Canada; I have access to a reliable vehicle for business purposes.

WORK EXPERIENCE

Process Engineering Volunteer | McAlpha Inc., Calgary (Remote) | Jan 2025 – present

- Simulated Catalytic Membrane Reactor (CMR) pilot plant processes (Ammonia, Methanol, Synthetic Crude) in Aspen HYSYS from flare gas and produced water feedstocks; results directly supported investor presentations and feasibility decisions for three projects.
- Developed Gas-To-Liquid (GTL) technical presentations for clients and co-authored grant documentation, contributing engineering analysis that advanced project financing discussions.

Assistant Project Engineer (Process) | Second Adams International Ltd., Lagos | Jan 2022 – Dec 2024

- Executed mass/energy balances, PFD development, and equipment sizing in Aspen HYSYS for produced water and wastewater utilization projects, cutting conceptual design iteration time by ~25%.
- Generated AutoCAD Plant 3D layouts and MTOs from P&IDs for water tank and piping systems; coordinated vendor procurement, reducing on-site material discrepancies during installation, supporting fabrication and installation.
- Delivered energy audits and utility optimization reports to management; findings supported operational cost reduction planning across client facilities.

Production Engineering Intern | Addax Petroleum, Lagos | July 2019 – Jan 2020

- Monitored daily production and water injection data, supporting real-time operational reporting; completed formal training in P&ID interpretation, production chemistry, and IWCF Level 1 well control.
- Participated in well intervention, chemical injection programs, and job hazard analyses, building hands-on exposure to produced water handling and HSE compliance.

Package Handler | Federal Express (FedEx), Sudbury, ON | Dec 2024 – Present

- Processed 3,000+ packages per shift, loading and unloading 3–4 trailers daily and lifting packages more than 70lbs— demonstrating reliability, physical endurance, and strict adherence to workplace safety protocols.

EDUCATION

M.Eng. Engineering Science — Laurentian University, Sudbury, ON (Dec 2024– April 2026, Expected) | Focus: PFAS removal, wastewater treatment, waste-to-energy

B.Eng. Chemical Engineering (GPA 3.71/4.0) — Nnamdi Azikiwe University, Nigeria (Sep 2015 – April 2021)

Microcredential in Entrepreneurship — Jim Leech Mastercard Foundation Fellowship, Queen's University (Jan – April 2024)

TECHNICAL SKILLS

Simulation: Aspen HYSYS (proficient), Aspen Plus, ChemCAD, GPS-X, SUMO, STOAT

Design: AutoCAD Plant 3D, AutoCAD P&ID, PFD/P&ID development, equipment sizing, line list, pipe sizing

Tools: MS Project, Power BI, MATLAB, QGIS, Microsoft Office Suite

Competencies: Laboratory analysis, mechanically inclined, process optimization, wastewater/produced water treatment, PFAS removal, MTO generation, HSE compliance, QA/QC

CERTIFICATIONS

Standard First Aid & CPR Level C — Canadian Red Cross (2026) | Water Treatment & Water Distribution and Supply OIT Certificate (OWWCO, 2026) | Wastewater Treatment & Wastewater Collection OIT Licence (OWWCO, 2026) | Valid Ontario Driver's License (Class G2) | WHMIS (2025) | Log-out Tag-Out & Confined Space training (2026) | TDG (2026) | Hazard Analysis Critical Control Points (HACCP)— Alison (2025) | Diploma in Food Safety— Alison (2024)

PROFESSIONAL AFFILIATIONS

Operator-In-Training (OIT) — OWWCO | Student Member — Ontario Society of Professional Engineers (OSPE) | Engineer-In-Training/P.Eng – (In View) | Member — International Association of Engineers (IAENG)