

OBED YEBOAH BOAKYE

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SUMMARY

A diligent, detailed and goal-oriented researcher with experience in graduate chemical engineering research with emphasis on sustainable energy technologies and catalysis. Seeking a research position to enable me utilize my research skills in order to contribute to global technological development

EDUCATION

Master of Applied Science, Process Systems Engineering

Jan. 2019 – Present

University of Regina, Regina, SK

Academic standing: GPA: 4.0/4.0

Bachelor of Science, Chemical Engineering

Sept. 2013-May, 2017

Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

Academic standing: 3.86/4.0 (First Class Honours)

ACADEMIC HONOURS & AWARDS

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| • Dean's Honour list awardee | 2020 |
| • Saskatchewan Innovation & Excellence Scholarship | 2019 & 2020 |
| • Queen Elizabeth Diamond Jubilee Scholarship | 2019 |
| • Provost Prize for Excellent Student in Chemical Engineering | 2015 & 2016 |

CONFERENCE PRESENTATIONS

- "Development of Mesoporous WO₃-Based Photocatalysts for Direct Conversion of Methane to Methanol"
70th Canadian Chemical Engineering Conference, October, 2020
- "Mesoporous tungsten catalysts for low temperature methanol production"
1st Graduate Research Conference, February, 2020
- "Mesoporous tungsten catalysts for low temperature methanol production"
69th Canadian Chemical Engineering Conference, October, 2019

RESEARCH & TEACHING EXPERIENCE

Graduate Research Assistant

Jan. 2019 – Present

Advanced Energy Research Laboratory (University of Regina)

- Synthesized semiconductor oxide photocatalysts for photocatalytic conversion of methane and CO₂ to fuels
- Conducted material characterisation tests with lab equipment (BET Surface Analyser, UV-Vis Spectrophotometer, Thermogravimetric Analyser (TGA), XRD and SEM-EDS)

- Utilized GC-FID/TCD for gas and liquid sample analysis

Graduate Teaching Assistant

Jan. 2020 – April, 2020

Faculty of Engineering and Applied Science, University of Regina

- Assisted a graduate student in simulating and optimizing the conversion of spent coffee grounds to biodiesel using Aspen Hysys for his final dissertation
- Assisted a group of final year undergraduate students in simulating and optimizing an enhanced oil recovery system in the Wapiti Gas Plant using Aspen Hysys
- Graded 50+ student assignments, quizzes and exams

Teaching & Research Assistant

Aug. 2017 – Aug. 2018

Chemical Engineering Department, KNUST-Ghana

- Assisted 120+ students with tutorials on transport phenomena, plant design and economics, physical chemistry, chemical laboratory work and natural gas processing
- Organised field trips to various process industries for the students in the department
- Supervised undergraduate dissertations and projects.
- Graded 120+ student assignments, quizzes and exams and analysed results using statistical tools

Third and Final Year Research Project Leader

Sept. 2015 – May, 2017

Kwame Nkrumah University of Science and Technology (KNUST), Ghana

- Performed an experiment for the conversion of castor oil to bio-lubricant
- Performed a plant design for the production of fuel-grade bioethanol from biomass feedstock
- Performed a process design for the production of arc welding electrode

PROFESSIONAL WORK EXPERIENCE

Process Engineering Intern

Jun. 2016 – Jul. 2016

Ghana National Gas Company, Atuabo, Ghana

- Provided assistance in the transfer of LPG and Condensate to third party companies through pipelines and bulk distribution vehicles
- Conducted qualitative analysis of processed gas in the gas processing plant
- Prepared reports of product transfers and laboratory results for superiors and team leads

Process Engineering Intern

Jun. 2015 – Jul. 2015

West African Cocoa Research Institute of Ghana, Tafo, Ghana

- Performed quality assurance of manufactured products obtained from cocoa and cashew.
- Assisted in the conversion of cocoa into useful end products such as soap, wine, jam and body creams

Process Engineering Intern

Jun. 2013- Jul. 2014

Intravenous Infusions limited, Koforidua, Ghana

- Gained laboratory skills for quality control of processed intravenous fluids
- Gained experience on the operation of pharmaceutical unit operations such as the sterilization, filling and mixing units

TECHNICAL SKILLS

- BET Surface Analyzer
- Thermo-gravimetric Analyzer
- Gas Chromatograph
- UV-Vis Spectrophotometer
- Aspen Hysys
- Python
- Origin
- NLReg

VOLUNTEERING ACTIVITIES

- University of Regina International Student Peer Advisor
- University of Regina Junior Ambassador
- Village Outreach team member
- Peer Counsellor

PROFESSIONAL MEMBERSHIPS

- Canadian Society for Chemical Engineers (CSChE)