

ALEISHA J. COUSINS

CONTACT INFORMATION

Address: 49 Columbia St. W, Waterloo, ON

Phone: +1 519 503-3005

Email: cousinsaleisha@gmail.com

LinkedIn:

<https://www.linkedin.com/in/aleisha-cousins-154187165/>

EDUCATION

University of Waterloo, Waterloo, ON
Honours, Co-operative Program, B.A.Sc. in
Chemical Engineering, Option in
Management Sciences, Apr 2018

PROFESSIONAL SKILLS

- Adaptive and self-driven
- Effective time management
- Strong safety ethic

TECHNICAL SKILLS

- Project Management
- Continuous Improvement
- Lean Manufacturing
- WHMIS certified
- ISO14001 knowledge

TECHNICAL TOOLS

- MATLAB programming
- Aspen HYSYS
- COMSOL Multiphysics
- Microsoft (Word, Advanced Excel, PowerPoint) SAP

PUBLICATIONS

Wu, X., Shi, Z., Tjandra, R., Cousins, A., Sy, S., Yu, A., Berry, R., and Tam, K (October 2015). Nitrogen-enriched porous carbon nanorods templated by cellulose nanocrystals as high-performance supercapacitor electrodes. *Journal of Materials Chemistry A*. Issue 47.

ACTIVITIES AND INTERESTS

- Pan-American National Badminton Team, 2010-2012
- UW Badminton Varsity Team
- Wolmer's Alumni Assn.
- Vickers' Studio of Ballet: Royal Academy of Dance
- UW Assn of Caribbean Students
- UW FEDS Student Union
- UW Black Assn for Student Expression
- Racketeers' Badminton Club

WORK EXPERIENCE

Junior Process Engineer

Bioline Corp., London, ON, May 2017-Aug 2017

- Conducted field work and simulations at an industrial plant to develop an environmentally sustainable SMS processing plant that results in a net reduction of 2,500 lbs of CO₂E in GHG emissions.
- Maintained QC/QA systems including HPTA and IHSS; revised an SOP to drastically reduce manpower from several people to one FTP generating savings of ~5 hours labour.
- Supervised the execution of 10 daily batches of SMS, monitoring feed quality and process yield; succeeded at optimizing efficiency and increased plant production by 15%.

Process Improvement Engineer

Seprod Limited, Kingston, Jamaica, Sept 2016-Dec 2016

- Collaborated with plant engineers to implement optimized techniques to produce 30, 000 metric tons of edible oils per year; succeeded in reducing acid treatment ratio to 33.1:1 and caustic soda neutralization ratio by 32%.
- Revised and ensured regulatory compliance with quality programs including GMP, SOP, HACCP, SQF and AOCS; reduced acidity disposal limit by 2.16%.
- Assisted in developing critical control points, processes, specifications in manufacturing, for ongoing quality assurance of all finished goods.

Research Assistant

P. Chou Biomanufacturing Laboratory, Waterloo, ON

Jan 2014-Apr 2014, May 2015-Aug 2015

- Applied metabolic engineering strategies to cultivate bacteria for renewable biofuel production and biopharmaceutical application.
- Improved the industrial performance of *Bacillus Subtilis* as an effective platform for high-level Hyaluronic Acid (HA) production; succeeded in finding the optimal proportion of trace metals elements to increase production of HA by approximately 1.5%.

Junior Project Manager

Lydford Mining Company, St. Ann, Jamaica, May 2012-Jul 2012

- Completed team projects by conducting trials for the manufacture of sand from limestone for beach-resuscitation and construction grade uses.
- Conducted testing of limestone samples for hardness, brightness, chemical composition for use in paper, plastics, fillers, extenders, pharma, agri, feed.
- Gained knowledge/experience of heavy-duty mining equipment in operation including CAT bulldozers, CAT and Komatsu excavators, jaw and hammer-mill crushers, triple deck screens, XRF Spectrometer and GCC mill

PROJECTS

Design of a scalable battery recycling process for spent Li-ion batteries, 2018

- Promising research into sustainable techniques recycling up to 5 metals and natural resource savings of ~51% when compared to landfill disposal.

Fuel Cell (PEM) Car Project, UW, 2013

- Out of 15 teams, our team placed 1st based on the engine's runtime and placed 3rd overall.

REFERENCES

Available upon request