Eric O'Neill

(248) 880-4021 — www.egoneill.com — egoneill2@wisc.edu

EDUCATION

University of Wisconsin Madison Madison, WI
Ph.D. in Chemical and Biological Engineering Expected 2023
GPA: 3.5/4.0

University of Michigan Ann Arbor, MI
BSE in Chemical Engineering; Minor in Computer Science Apr 2018
GPA: 3.80/4.00
Major GPA: 4.00/4.00

- The Clifton S. Goddin Prize for exceptional merit, based on qualities of leadership and scholarship (2017).

EXPERIENCE

Maravelias Research Group Madison, WI
Ph.D. Researcher, Supply Chain Optimization Sep 2018-present

- Develop stochastic mixed integer linear programming (SMILP) models for the biofuel supply chain considering spatially explicit biomass yield uncertainty and landscape design. Publication to be submitted.
- Peer review research articles in leading journals in the subjects of biofuel supply chain optimization and GIS applications.
- Leverage knowledge of chemical engineering, programming, and data analysis to develop tailored solution methods for computationally intensive SMILP supply chain models.

Fogler Research Group Ann Arbor, MI
Research Intern, Asphaltene Deposition May 2017-Aug 2017

- Contracted by Exxon Mobil to investigate the deposition rates of asphaltenes in crude oils and contributed to a better understanding of inhibitor chemical performance in a packed bed test.
- Used knowledge of Chemical Reaction Engineering to write problems for the 2nd edition of Professor Fogler's textbook.
- Analyzed large amounts of data generated during experimentation. Presented conclusions and recommendations which resulted in improved investigative decisions.

Owens Corning Granville, OH
Science and Technology Intern, Roofing and Asphalt May 2016-Aug 2016

- Developed quantitative and qualitative test methods and standard operating procedures that allowed Owens Corning to improve how they investigate emerging technologies and their usefulness for current and future projects.
- Presented my work to senior technical staff and authored a technical publication describing my 15 weeks of research and how the results should be interpreted and what future work should be conducted.
- Shadowed experienced engineers to gain insight into research and development as a business, learning how customers and profit drive research decisions.

University of Michigan Department of Radiology Ann Arbor, MI
Research Assistant, Dr. Fabiilli Lab Sep 2015-Nov 2016

- Studied the in-vitro and in-vivo binding affinity, effectiveness, and stability of sonosensitive micro-droplet emulsions.
- Performed data analysis to determine the blood vessel growth efficiency of micro-droplet laden scaffolds in mice.
- Presented my work to faculty and students at the annual undergraduate research symposium. Received an award for the best presentation of the session.

PROJECT EXPERIENCE

Michigan Concrete Canoe Team Sep 2014-Present
Chief Engineer/President

- Perform the role of project manager and oversee 25 engineering students and all aspects of the yearlong project to construct a fully functional canoe made entirely of concrete.
- As Chief Engineer of mix design, researched and developed a concrete mix and improved construction, crack management, and finishing processes. Contributed to the team's best ever second place finish in the region wide competition.
- Leveraged engineering skills learned in the classroom in an area outside my field of study to create the lightest and strongest concrete possible and learned valuable leadership, communication, teamwork, and project management skills.