

Riley Garliauskas

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Education

University of Michigan

Bachelor of Science in Chemical Engineering, Minor in Mathematics

Ann Arbor, MI

December 2023

- GPA: 3.989/4.000 (4.0 Major GPA, 4.0 Minor GPA)
- Course Highlights: Material and Energy Balances, Organic Chemistry I & II with labs, Thermodynamics, Fluid Mechanics, Mass & Heat Transfer, Separation Processes, Reaction Kinetics, Numerical Methods for Engineers, Partial Differential Equations and Boundary Value Problems

Northville High School

- GPA: 4.0/4.0

Northville, MI

June 2020

Work Experience

Operations Intern

Baystar / Bayport Polymers, LLC

Pasadena, TX

May-August 2023

- Analyzed production data in Excel to develop a catalyst recommendation saving \$200k/year.
- Created an ASPEN model for multiple pumps and recommended changes to prevent cavitation.
- Participated in a Process Hazard Analysis and learned to read P&ID with a focus on safety.
- Added DCS tags to AspenTech InfoPlus21 to monitor real-time process data.
- Participated in the commissioning and startup of a new \$1.5B unit.

Research Assistant

Thurber Lab, University of Michigan Chemical Engineering

Ann Arbor, MI

May-August 2022

- Project title: Identification of uptake and intracellular distribution (downstream) of small molecule/bRo5 drugs in cancer treatment.
 - Measured fluorescence of NCI-N87 cells with an Exatecan payload using a plate reader. Created a drug uptake model governed by differential equations in MATLAB.
 - Synthesized peptides and used HPLC to purify them. Developed a cytotoxicity assay with flow cytometry to study the effect of STING agonists on cell lysis. Wrote the lab's SOP for HPLC.

Instructional Aide

ChE 230: Material and Energy Balances, ChE 341: Fluid Mechanics, ChE 342: Mass & Heat Transfer

Ann Arbor, MI

August 2022-Present

- Held office hours, wrote/graded quizzes, and taught review sessions for a class of 100 students.
- Received the Culture & Climate Award in April 2023 for creating an outstanding learning environment.

Leadership Experience

Fall Engineering Career Fair hosted by SWE/TBP

Director

Ann Arbor, MI

December 2021-2022

- Managed a team of 22 student chairs leading one of the nation's largest student-run career fairs.
- Generated over \$250,000 in revenue from over 250 attending companies and sponsors.
- Led a redesign of the fair's website with over 27,000 users in the months leading up to the event.

Registration Committee Chair

April 2023-Present

- Designed a spreadsheet to track registration for all companies and automate table placement.

Tau Beta Pi: The Engineering Honor Society - Michigan Gamma Chapter

External Vice President

Ann Arbor, MI

December 2021-2022

- Organized the CoE Leaders & Honors Awards, coordinating interviews with 150 students/faculty.

President

December 2022-April 2023

- Responsible for leading 26 officers and managing finances in excess of \$300,000.
- Led the chapter to its status as the most active in the nation, holding 150+ events annually.
- Received the Thomas S. Rice Award for most outstanding contributor to the chapter in 2022.