

# Delaney Hammond

248-884-4360 • delhammo@umich.edu  
7443 Verona Dr. • West Bloomfield, MI 48322

## EDUCATION

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### University of Michigan - Ann Arbor, MI

Aug 2020 - Apr 2024

*Pursuing: Bachelor of Science in Chemical Engineering (concentration in BioPharmaceutical Engineering)*

*Minor in Energy Science and Policy*

GPA: 3.90/4.00

#### **Awards and Recognition:**

- Dean's Honor List Recipient (2020-present)
- James B. Angell Scholar (2022)

Relevant Coursework: Fluid Mechanics, Thermodynamics, Material and Energy Balances, Introduction to Engineering: Engineering Biological Systems, Introduction to Computers and Programming, Organic Chemistry (I and II)

## PROJECT EXPERIENCE

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### University of Michigan - Ann Arbor, MI

March 2021 - Apr 2021

*The Utilization of Pine Needles as a Biofuel Source*

- Crafted and carried out pretreatment, hydrolysis, and fermentation procedures that were specific to the feedstock
- Computed the yield of bioethanol and created visual aids to portray the ethanol production over time
- Created a large-scale design schematic of the bioethanol's production and subsequently conducted a cost analysis

### University of Michigan - Ann Arbor, MI

Jan 2021 - March 2021

*Application of Alginate Beads as an Alternate Delivery Method for Ibuprofen*

- Researched and developed a novel way to administer ibuprofen by encapsulating it in chewable alginate beads
- Designed and conducted experiments to discover the optimal hydrogel formation conditions
- Performed a proof of concept trial to evaluate the beads' dissolution in a stomach-like environment

### Walled Lake Northern High School - Walled Lake, MI

Sept 2019 - May 2020

*AP Computer Science Principles Create Performance Task*

- Conceptualized and created an interactive program that allowed users to play a game of tic tac toe
- Implemented abstraction to manage the complexity of the program and to create a more efficient and readable code
- Developed parent and child algorithms that included mathematical and logical operators

## COMMUNITY OUTREACH

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### Forgotten Harvest

- Packing and distributing emergency food boxes to neighborhoods in need

### Washtenaw County Cub Scouts

- Leading and coaching scouts in coding and physics related activities required for earning STEM merit badges

### Oakridge Nature Area

- Assist nature stewards in removing invasive species in order to conserve and promote the health of the ecosystem

## ACTIVITIES

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Fall Engineering Career Fair Chair

Sept 2022

University of Michigan Engineering Honors Program

Jan 2022 - present

Tau Beta Pi Engineering Honor Society

Jan 2022 - present

## COMPUTER SKILLS

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**Platforms:** Microsoft Office, Google Cloud

**Languages:** C++, MATLAB, Python, Java