

Madeline Murphy

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EDUCATION	Bachelor of Chemical Engineering College of Science and Engineering, University of Minnesota—Twin Cities, Minneapolis, MN GPA: 4.0	Expected May 2024
SKILLS	MATLAB, Python, ChemDraw, Microsoft Word, PowerPoint, Excel, Forklift Certified	
LEADERSHIP	President, Ski and Snowboard Club UMN <ul style="list-style-type: none">Took on a key organizational role in a club of 500+ members. Delegated tasks and responsibilities amongst other officers.Planned local events and organized a winter break ski trip for over 100 students. Secretary, American Institute of Chemical Engineers UMN	May 2022—present May 2023—present
WORK EXPERIENCE	Undergraduate Researcher, Dauenhauer Group UMN <ul style="list-style-type: none">Led a computational research project studying catalytic resonance theory applied to a cyclic surface reaction.Successfully applied computational skills by using Julia and parallel computing resources to model the desired chemical reactions and processes. Demonstrated the ability to learn quickly and implement creativity while exploring new ideas and problems. Chemical Engineering Intern, ABV Technology St. Paul, MN <ul style="list-style-type: none">Calibrated and tested 10 beta-units of new analytical equipment and trained all internal employees and customers on operating the equipment.Led the development of sample preparation for that analytical equipment and introduced a new method of degassing that significantly decreased the CO₂ concentration in the input beer, reducing error in the measured results.Immersed myself in studying the complex thermal modeling implemented in the equipment and grew a deeper understanding of circuit boards and software engineering. Chemistry Laboratory Intern, Leprino Foods Co. Denver, CO <ul style="list-style-type: none">Fostered a clean and organized lab environment to ensure accurate and reliable results while performing quality assurance and research testing.Demonstrated the ability to quickly learn and follow standard operating procedures.	Sep 2022—present May—Aug 2022 June—Aug 2021
COMMUNITY	Society of Women Engineers, Member UMN <ul style="list-style-type: none">Engaging in weekly events designed to develop professional skills, cultivate a supportive community of female STEM majors at the University, and connect with our local community through volunteer work. Organic Chemistry Connections Leader UMN <ul style="list-style-type: none">Lead Organic Chemistry tutor sessions and proposed new, unique ways to learn the material to assist students struggling in the course.	Sep 2021—present Spring & Fall Semester 2021