

# Christopher Kopiwoda

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## EDUCATION

<b>Michigan State University, College of Engineering</b> - East Lansing, MI	3.86/4.00
<i>Bachelor of Science, Mechanical Engineering; Minor in Materials Science Engineering</i>	May 2027
• Tau Beta Pi and Pi Tau Sigma, Engineering Honor Societies	
• Member of MSU Honors College, an invitation-only program serving students pursuing academic excellence	

## RESEARCH

### Dr. Zevalkink Group – Michigan State University

<i>Research Assistant</i>	August 2025 – Present
• Optimizing Optical Floating Zone Furnace techniques for $\text{Bi}_2\text{Se}_3$ single crystal growth	
• Synthesizing and characterizing $\text{CoSb}_3$ and $\text{Bi}_2\text{Te}_3$ single crystals for thermoelectric materials research requested by NASA	

*MSE 490 Independent Study* January 2025 – May 2025

- Calibrated Optical Floating Zone Furnace and grew  $\text{Bi}_2\text{Se}_3$  single crystals, including material preparation and XRD analysis
- Developed a user manual for an Optical Floating Zone Furnace, including walkthroughs of mirror alignment, interface use, and ampule-based crystal growth usage

## WORK EXPERIENCE

### Michigan State University – East Lansing, MI

<i>Math Learning Center Supervisor</i>	September 2025 – Present
• Supervising MLC operations, coordinating tutors and managing resources to support student needs	

### Community Clockwork (Startup) – Chicago, IL (Remote)

<i>Backend Developer</i>	May 2025 – August 2025
• Created Agentic Workflows for HOA task automation using pretrained AI models, Pydantic, FastAPI, Docker, and Postgres	
• Migrated from google cloud functions to a Celery + Redis solution in Python	

### Michigan State University – East Lansing, MI

<i>Undergraduate Learning Assistant (ULA)</i>	August 2024 – May 2025
• Taught recitations in MTH 124 (Survey of Calculus I) providing both in class and out of class support	

### Jerome Resources – Plainfield, IL

<i>Engineering Intern</i>	May 2024 – August 2024
• Developed and updated CAD blueprints for company facilities	
• Conducted comprehensive research to identify key sources of food waste in Chicago and Milwaukee	
• Participated in a week-long site visit in Idaho to gain hands-on experience with anaerobic digestion processes, specifically converting cow manure into renewable energy (methane)	
• Completed and passed a rigorous safety certification course in a professional setting with no prior preparation	

### Sloan Valve Company – Franklin Park, IL

<i>Engineering Intern</i>	July 2022 – August 2022
• Identified and resolved malfunctions in a specialized diaphragm life testing machine	
• Documented wear and tear analysis for diaphragms undergoing testing in diaphragm life testing machine	
• Executed valve flushing procedures on various toilet bowls, processed data used to analyze distinctions and commonalities among different brands and models	

## ACTIVITIES

• University Undergraduate Research and Arts Forum Presenter (UURAF)	April 2025
• MSU Designathon, Organizer's Favorite Winner, Accessibility and Inclusion Track Winner	March 2025
• Spartahack X Hackathon, Sustainability Track Winner (498 Participants from 38 schools)	February 2025
• Executive Board Member of Pool Club (Registered Student Organization)	November 2024 – Present

## SKILLS

NX, Fusion 360, Abaqus, CAD, FEA, Word, Excel, Python, Java, C++, MATLAB, n8n, Agentic Workflows