

# Christopher Kopiwoda

Kenilworth, IL 60043 | ckopiwoda@comcast.net | (847) 840-2489 | linkedin.com/in/christopher-kopiwoda

## EDUCATION

**Michigan State University, College of Engineering** - East Lansing, MI

3.86/4.00

*Bachelor of Science, Mechanical Engineering; Minor in Materials Science Engineering*

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

*Research Assistant*

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

*Math Learning Center Supervisor*

September 2025 – Present

- Supervising MLC operations, coordinating tutors and managing resources to support student needs

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

*Backend Developer*

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

*Undergraduate Learning Assistant (ULA)*

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

*Engineering Intern*

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

*Engineering Intern*

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