# **Molly Rich**

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#### **Education**

#### **University of Michigan Engineering**

Ann Arbor, Michigan

Bachelor of Science in Engineering in Computer Science

Graduating May 2027

- GPA: 3.65 / 4.0
- Academic Honors: University Honors, Dean's List
- Relevant Coursework: Data Structures and Algorithms, Discrete Mathematics, Web Development and Accessibility, Robotics
- Relevant Organizations: Tau Epsilon Kappa Professional Technology Fraternity, Girls in EE and Computer Science, Kappa Delta

## **Relevant Experience**

#### Web Development Intern, Flowmotion

May 2024 - August 2024

- Developed business' website using HTML, CSS, Javascript, expanded brand exposure, and increased total clients by 20%
- Designed and optimized the user interface to enhance engagement, incorporating features including booking forms and client testimonials, while making sure all pages were accessible, resulting in improved user experience

CodeQuacker, Mhacks September 2024

- Built debugging tool inspired by "Rubber ducky debugging method" that takes in verbal or textual input and outputs AI-generated suggestions that enhance student learning: Created specialized AI assistant using Google Breadboard
- Programmed AI-generated lessons based on CodeQuacker inquiries using OpenAI API Endpoints; Used Flask and Jinja for front-end and MySQL for profile data storage; Future plans include classroom implementation and IDE extension.

#### Piazza Post Classifier, University of Michigan

March 2024

- Developed a C++ machine learning algorithm to classify Piazza posts by subject, incorporating natural language processing techniques and binary search trees for optimized data organization and fast retrieval
- Built a custom map data structure and implemented recursive algorithms for efficient memory management, further developing
  expertise in function objects, container ADTs, binary trees, and associative containers

#### Musician's Tool for Pitch Training, University of Michigan

Jan 2024 - March 2024

- Collaborated with a cross-functional team to develop a pitch training tool for singers, implementing an intuitive GUI using Julia, while ensuring accessibility and usability for a diverse user base
- Led efforts to design and integrate pitch analysis, volume feedback, and metronome features, providing real-time feedback for users, and coordinated testing to ensure smooth operation and accurate pitch transcription

## **Leadership and Professional Development**

## Tau Epsilon Kappa, Professional Technology Fraternity, University of Michigan

March 2024 - present

Vice President of Internal Affairs

- Spearheaded the organization of professional networking events, social activities, and alumni gatherings, enhancing member engagement and strengthening the fraternity's professional and social network
- Collaborated with executive board members to develop and implement strategies that increased member engagement and participation, in turn increasing the overall revenue produced by the fraternity by 25%

### **Skills**

Technical Skills: React.js, C++, Next.js, Flask, Django, CSS, Tailwind, Bootstrap, JavaScript, Python, Java, Julia, MATLAB

Other: Leadership, Public Speaking, Event Planning, Cross-functional Collaboration

Personal Interests: Weightlifting, Badminton, Sewing