

# Aiden Wenzel

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## Objective

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Summer 2026 Internship in Embedded Systems or Circuit Design

## Education

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### University of Michigan

Ann Arbor, MI (September 2023 - May 2027)

BSE, Electrical Engineering

Minor, Computer Science and Music

GPA: 3.45/4.00

## Experience

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### Coretek

Farmington, MI (May 2024 - July 2025)

Technical Support Specialist

Worked with HTML, CSS, and C# to develop intuitive ASP.NET UIs.

Used C# APIs to pull customer data from MS Azure ServiceNow.

Used KQL to query and summarize cloud resource analytics in Azure dashboards.

## Projects

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### Fractal Visualizer | C++

Utilized OpenGL APIs to accurately visualize the Mandelbrot set and Julia sets.

Implemented custom panning and zoom functionality for near-infinite zooming into complex geometries.

### Conway's Game of Life | C++

Wrote custom implementation of Conway's Game of Life using SDL.

Customized build system and dependency management with CMake.

### Instrument Recognition Software | Python

Worked with a team of 3 other engineering students to build an instrument recognition app.

Processed audio data using Librosa library with feature extraction algorithms like the FFT.

Trained CNN with processed audio data to predict what musical instrument is featured in the sample.

## Skills

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### Programming

Matlab: Organized data, processed images, and plotted data.

C++: Substantial knowledge of STL. Implemented algorithms and data structures from scratch.

C: Programmed embedded control systems for autonomous robots.

Python: Built deep learning models with PyTorch. Processed data with Pandas, NumPy, and Matplotlib.

L<sup>A</sup>T<sub>E</sub>X: Wrote elegant, concise lab reports and homework assignments.

### Unix

Worked with Debian-based Linux distributions such as Ubuntu and Mint.

Familiar with terminal-based text editing using Vim.

Experience with basic terminal utilities such as grep, git, make, and tmux.

### Circuit Analysis

Waveforms: Analyzed analog signals in AC and DC circuits with an Oscilloscope.

LTspice: Simulated analog circuits.

Logisim: Simulated digital logic circuits.

ModelSim: Simulated digital logic circuits using Verilog HDL.

## Extracurriculars

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### Michigan Marching Band

Dedicated approximately 20 hours each week to rehearsals and performances in the Big House.

Performed at the Big Ten Championship in 2023 and the ReliaQuest Bowl in 2024.

Initiated as an official brother of  $KK\Psi$ , the National Honorary Band Fraternity.

Performed with the Michigan Hockey Band at Yost Ice Arena.