

# Aiden Wenzel

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## EDUCATION

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### University of Michigan

- Major, Electrical Engineering (BSE)
- Minor, Computer Science
- GPA: 3.45/4.00

## PROFESSIONAL EXPERIENCE

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### Coretek Services

- Worked with HTML, CSS, and C# to develop intuitive ASP.NET UIs.
- Used C# APIs to pull cloud resource information from MS Azure and ticket information from ServiceNow.
- Used KQL to query and summarize cloud resource analytics in Azure dashboards.

## SKILLS

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### Programming Languages

C, C++, C#, Python, MatLab, Verilog HDL,  $\text{\LaTeX}$

### Frameworks

OpenGL, SDL, PyGame, Matplotlib, NumPy, Pandas, PyTorch

### Technical Software

Simulink, Waveforms Oscilloscope and Wavegenerator, LtSpice, Modelsim, Jupyter Notebooks

### UNIX

WSL2, Debian, grep, git, cmake, make, tmux, vim, ssh

## PROJECTS

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### Fractal Visualizer

- 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

- Wrote custom implementation of Conway's Game of Life using SDL.
- Customized build system and dependency management with CMake.

### Instrument Recognition Software

- Worked with a team of 3 other engineering students to build an instrument recognition app.
- Input audio data would be processed using the Librosa library. Harmonic overtones in audio samples would be extracted using the FFT algorithm.
- Processed audio data would be used to train a CNN which would take audio files as input, process them, and predict what musical instrument is featured in the sample.

## RELEVANT COURSE WORK

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- EECS 281 - Data Structures and Algorithms:
- EECS 370 - Computer Organization:
- EECS 200 - Electrical Engineering System Design:
- EECS 215 - Introduction to Circuits:
- EECS 216 - Signals and Systems:
- EECS 270 - Digital Logic Design:

## 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 against the University of Iowa 2023, and the ReliQuest Bowl against the University of Alabama in 2024.
- Initiated as an official brother of Kappa Kappa Psi ( $KK\Psi$ ), the National Honorary Band Fraternity.
- Performed with the Michigan Hockey Band at Yost Ice Arena.