Aiden Wenzel

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Education

University of Michigan
- Ann Arbor, MI, September 2023 - Present
- Electrical Engineering BSE
- Computer Science and Music Minor

Experience

Coretek
- Farmington, MI, May 2024 - Present
- Gained experience with Microsoft Azure and on-premisise server infrastructure.
- Used job knowledge to build my own self hosting game server using port fowarding and DNS.
- Used KQL to querry and summarize cloud resource analytics.

Skills

Programming
- Matlab: Organized data, processed images, and plotted data.
- C++: Substaintial knowledge of STL. Implemented numerous algorithms and data structures from scratch.
- C: Programmed embedded control systems for autonomous robots.
- Python: Built deep learning models with PyTorch and processed data with Pandas, Numpy, and Matplotlib.
- LaTeX: Wrote elegant, concise lab reports and homework assignments.

Circuit Analysis
- Waveforms: Analyzed analog signals in AC and DC circuits with an Oscilloscope.
- LTSpice: Simulated analog circuits.
- Logisim: Simulated digital logical circuits.
- Modelsim: Simulated digital logical circuits using Verilog HDL.

Projects

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 a 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.
- Process audio data would used to train a CNN which would take audio files as input, process them, and predict what musical instrument is featured in the sample.

Extra Ciriculars

Michigan Marching Band
- Dedicated approximately 20 hours each week towards rehearsals and performances in the Big House.
- Went to the Big 10 Championship against the University of Iowa 2023, and the ReliQeust Bowl against the University of Alabama 2024.
- Initiated as an official brother of $KK\Psi$, the National Honorary Band Fraternity.