Nathan Sochocki

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Education

University of Michigan **Ann Arbor, MI**
Bachelor of Science in Computer Engineering *May 2025*

- GPA: 3.82/4.0
- Extracurriculars: IEEE-Eta Kappa Nu (HKN), Taekwondo Club
- Course Highlights: *Data Structures and Algorithms (EECS 281), Intro Logic Design (EECS 270), Computer Organization (EECS 370).*
- Awards/Honors:
    - *Leinweber Software Scholarship* - Awarded to 14 second-year students in the College of Engineering with an interest in the Michigan software industry.

Relevant Experience

miRcore **Ann Arbor, MI**
Web Developer *Jan. 2022 - Nov. 2022*

- Responsible for maintaining and creating website content for two websites using WordPress to ensure a positive user experience.
- Troubleshoot website problems as they arose and updated the various websites as necessary.
- Incorporated ideas from a group of 15 individuals to develop and implement content for organization events.

Forum Post Classifier

- Designed a program in C++ that uses natural language processing and machine learning techniques to automatically identify the subject of forum posts. The program is first trained with previously labeled posts, storing the necessary information in a map of pairs. The classifier then utilizes log-probability methods to predict the label for a new post.

Path Finding Simulation
EECS 281

- Created a path finding program in C++ that processes map data from a text file into a 3D vector of structs and finds a single path to the destination using a routing scheme. The routing scheme is implemented as either a breadth first search or depth first search based on user input. Utilized backtracking methods to trace the path taken, which is printed out in the form of a map or coordinate list, as specified.

Four Function Calculator
EECS 270

- Emulated a calculator using Verilog that performs addition, subtraction, multiplication, and division on a DE2-115 FPGA board. Utilized sequential logic and implemented a complex register transfer level (RTL) design, which includes a datapath to perform computation and a corresponding controller. The computational core of the project is an 11-bit adder/subtractor, which is utilized by an implementation of Booth's algorithm for multiplication.

Work Experience

Enthalpy Analytical **Mt. Pleasant, MI**
Sample Coordinator *June 2021 - Aug. 2021*

- Inspected over 20 air samples daily for quality issues to ensure a proper and accurate analysis while following the company's standard operating procedures and quality assurance procedures.
- Organized confidential information associated with each air sample into the company database.

Skills

- Programming Languages: C, *C++, MATLAB, Python, Julia, Verilog.*
- Software: *GitHub, GitLab*, *Microsoft Office, WordPress, Quartus, ModelSim, Visual Studio, Visual Studio Code.*