Gabriel S. Lounsbury

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Education

University of Michigan **Ann Arbor, MI**
Pre-Admitted for Masters in Science in Computer Engineering *January 2024 - May 2025*
Bachelors in Science and Engineering in Computer Engineering *August 2020 - December 2023*
Minor in Astronomy and Astrophysics
GPA: 3.78/4.00
Course Highlights: Physics II, Differential Equations, Data Structures and Algorithms, Advanced Embedded Systems, Intro to Operating Systems, Embedded Control System, Intro to Electric Circuits, Intro to Signals and Systems
Award & Honors: Dean's List, University Honors, Angell Scholar, Engineering Honors Program, Eta Kappa Nu Historian Officer

Work Experiences

University of Michigan Engineering Honors Program **Ann Arbor, MI**
Engineering Honors Peer Advisor *August 2023 - Present*

- Assisting other engineering students in course planning, employment searches, and general advice so they can continue through their academic challenges with thorough information
- Aiding in campus-wide events such as engineering festivals to help students find their interests outside of the classroom

Dynamic Map Platform North America **Livonia, MI**
Software Developer Intern *May 2023 - August 2023*

- Contributed to the startup as an advanced software team member by developing geospatial data, working through PostGIS, and utilizing OpenStreetMap to aid in the production of precise, detailed digital maps used in autonomous driving methods
- Developed scripts in Python with PostGIS to update and fill tables in the company's production database allowing management to review data reflecting the effectiveness and efficiency of their road collection process

Kunz, Leigh, and Associates **Okemos, MI**
Software Engineering Intern *May 2022 - August 2022*

- Utilized SQL Server Reporting Services and Oracle Databases to create several reports for the State of Michigan on the well-being of the Women Infants and Children Program to be used by the development team and state employees
- Helped build a working web form using C# to edit files within a specific directory to avoid hours of redundant work and optimize the team's website release process

Completed Projects

University of Michigan **Ann Arbor, MI**
Advanced Embedded Systems Course Project *August 2023 - Present*

- Connecting course work and various skills such as 3D printing, laser cutting, PCB design, and embedded systems knowledge to create a special project for people to interact with in a team environment

Air Instruments Project: https://gitlab.eecs.umich.edu/abhipol/mitten *November 2022 - December 2022*

- Created a device as a group that uses a glove to play specific notes corresponding to different finger positions through embedded software and implementation of several flex sensors on a glove
- Used the STM32 Nucleo-144, and other various sensors and components to achieve different functionality such as volume control, pitch control, and instrument sound to give the user maximum control of the sounds

Williamston High School Lemelson-MIT Inventeam **Williamston, MI**
Sustainability Lead, Head Designer *October 2019 - June 2020*

- Invented and designed a patent pending autonomous beach cleaning device through engineering teamwork and implementation of multiple different systems to filter plastic waste from the sand of beaches and keep our lakes clean
- Presented the invention to the Lemelson-MIT organization and other InvenTeams who were also awarded the grant

Skills

Programming Languages : C++, C#, Python, JavaScript, Verilog, Visual Basic, MATLAB, Visual Studio
Other Computer Skills: Oracle, PostGIS, 3D Printing, Github, Visual Studio, STM Microcontrollers, Raspberry Pi, Arduino
Electrical : High voltage batteries and circuit building, soldering, LTSpice