Gannon Smith

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Education

University of Michigan College of Engineering Ann Arbor, MI

BSE in Computer Science Engineering, Minor in Electrical Engineering | GPA: 3.75/4.00 *Sept. 2021 – May. 2025*

Relevant Coursework: Machine Learning, Foundations of Computer Science, Web Systems, Computer Organization, Data Structures and Algorithms, Logic Design, Electronic Circuits, Discrete Math, Linear Algebra

Experience

Ford Motor Company May 2023 – July 2023

Connected Vehicle Software Intern *Dearborn, MI*

- Developed real-time hysteresis loop counting algorithm in C reducing application's PCM memory use by **98.3%**
- Demonstrated proof of concept for algorithm in Python, adding custom features to prove **100%** correctness
- Created model using MATLAB/Simulink to test algorithm in parallel with other PCM components

Michigan Medicine June 2022 – April 2023

Software Engineering Technician *Ann Arbor, MI*

- Automated faculty evaluation report generation enabling a **98%** reduction in labor time utilizing Python
- Collaborated with faculty to determine functional requirements for Mi-TRAC achieving grant of **$150,000**

University of Michigan – CSE September 2023 – Present

Undergraduate Researcher *Ann Arbor, MI*

- Investigated the formal relation between race logic and linear temporal logic
- Analyzed the correctness and performance of using race logic as opposed to temporal logic for system specification

Tamarack Tower September 2022 – Present

Web Developer and Server Administrator *Port Chester, NY*

- Developed web pages using HTML, CSS, and JavaScript and maintained server for nonprofit organization

Projects

Bubble | *Rust, PostgreSQL, Docker, Git* May 2022 – August 2023

- Built backend for open source, E2EE location-sharing app using REST API and a relational database
- Designed and developed backend for user authentication process using Rust and PostgreSQL
- Collaborated on frontend implementing groups feature using MLS protocol in Rust and SQLite database

Word Sequence Prediction | *Python* September 2023 – Present

- Developed Shakespearean word sequence prediction model trained remotely on compute cluster
- Utilized recurrent neural networks and long short-term memory frameworks in Python

Movie Review Sentiment Classifier –*Machine Learning* | *Python, sk-learn* September 2023 – Present

- Developed a machine learning classifier using Python and sk-learn to determine sentiment from movie reviews
- Utilized feature mapping techniques to enhance data representation and improve results

Wikipedia Search Engine –*Web Systems* | *Python, MapReduce, JavaScript* January 2023 – March 2023

- Built search engine for pages using text and link analysis, enabling modification of weight for pagerank in searches
- Developed backend REST API for application in Python, using parallel data processing with MapReduce

Instagram Clone –*Web Systems* | *Python, JavaScript, React, Flask, HTML/CSS* January 2023 – March 2023

- Implemented client-side dynamic pages using React, JavaScript, and HTML/CSS and deployed with AWS
- Developed backend REST API using Python and Flask with jinja templating and SQLite database

Technical Skills

Languages: C++, C, Python, Rust, JavaScript, SQL, C#, HTML/CSS, Verilog, ARM, MATLAB, R, Julia, LaTeX
Technologies: Linux, Git, Docker, Unity, CAD, VSCode, CLion, AWS
Libraries & Tools: React, sk-learn, Flask, numpy, JSON, Pandas, MapReduce, ROS, Regex, jinja, Simulink, Jupyter