Gannon Smith

906-322-6919 | gansmith@umich.edu | linkedin/gannonsmith | github/gannonsmith | gannonsmith.github.io

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 and their applications in verification
- 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*
- Produced pages with HTML/CSS/JavaScript and maintained server for website receiving **thousands** of visitors

PROJECTS

Bubble | *Rust, PostgreSQL, Docker, Git* — May 2022 – August 2023
- Created backend for open source, E2EE location-sharing app using REST API and a relational database
- Designed and developed account access processes with user authentication using Rust and PostgreSQL
- Collaborated on frontend implementing groups feature using MLS protocol in Rust and an SQLite database

Movie Review Sentiment Classifier | *Python, sk-learn* — September 2023 – October 2023
- Built multi-class classifier using Python and sk-learn to determine sentiment from movie reviews
- Utilized feature extraction techniques including bag-of-words and n-grams to generate relevant feature matrices
- Explored various hyperparameters, models, and weights to achieve **80.4%** accuracy

Word Sequence Prediction | *Python* — September 2023 – Present
- Implemented Shakespearean word sequence prediction model using n-grams for feature matrices
- Utilized recurrent neural networks with long short-term memory in Python framework TensorFlow

Wikipedia Search Engine − *Web Systems* | *Python, MapReduce, JavaScript* — January 2023 – March 2023
- Built search engine for **thousands** of wikipedia pages using text and link analysis in Python
- Used parallel data processing with custom MapReduce scripts, enabled a pagerank weight modifier

Instagram Clone − *Web Systems* | *Python, JavaScript, React, Flask, HTML/CSS* — January 2023 – March 2023
- Created client-side dynamic pages using React, JavaScript, and HTML/CSS and deployed with AWS
- Produced 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