Szymon Sarnowicz

szymon@sarnowicz.net | (425) 802-6406 | linkedin.com/in/szymonsarnowicz | szymon.wiki

Experience

General Motors Feb 2023 – Present

Software Engineer

- Redesigned an EV battery sub-diagnostic algorithm in C/C++ using Moving Anomaly Detection to track sensor readings and identify critical failures, storing results in non-volatile memory for persistent data retrieval, preventing potential failures in Chevrolet Bolt vehicles and saving ~$480M in recall costs.
- Established a CI pipeline with Jenkins and Bitbucket integration to automate high-level system testing of vehicle software, leveraging a custom Python test suite to interact with the vehicle simulator, providing comprehensive functional validation.
- Developed new remedial actions for vehicle battery faults within the microservice architecture, updating individual components and middleware interfaces, and ensuring requirements were met through comprehensive CppUTest component and solution-level testing.
- Collaborated cross-functionally to replace a data stream Kalman filter with a dual low-pass filter in vehicle software, applying BPU and WPA methodologies to identify the optimal filter, enhancing calibration ease of use.

Data4Good Dec 2023 - Present

Volunteer Full Stack Developer

- Developed a Svelte web application for a non-profit summarizing ReliefWeb documents, leveraging Apache Tika for metadata parsing and a tailored BART model to extract and summarize top-ranked sentences from PDFs.
- Solved server 3GB RAM limit by redesigning API calls into multiple stages and introducing exponential backoff for HTTP requests, increasing response success rate from 53% to 92%.
- Implemented alerting metrics for monitoring fail and successful responses, enhancing system reliability and enabling proactive issue resolution.

General Motors Jul 2021 – Feb 2023

Program Manager

- Oversaw the resolution of daily build issues across various stages of development for the Cadillac Lyriq and Celestiq autonomous vehicle programs.
- Tripled the amount of data collected per sprint by automating data collection request workflows, improving visibility and decision-making for project management.
- Developed and documented troubleshooting procedures and best practices, empowering team members to effectively diagnose and resolve camera, radar, and LiDAR related issues independently.

General Motors Sep 2019 – Jul 2021

Software Design Engineer + Rotational Program

- As an SDE I designed and implemented wheel speed arbitration logic by integrating data from various speed sensors
- Automated calibration data management processes, eliminating 1-hour previously spent daily on manual entry

Projects

PantryAI | *React, Express, AWC EC2 & S3* Nov 2023

- Developed app utilizing OpenAI's chat completions API to generate recipes and groceries based on pantry items.

Education

University of Michigan – M.S. in Applied Data Science – ML May 2025

University of Washington – B.S. in Mechanical Engineering Jun 2019

Skills / Certifications / Awards

Computing in Python – Georgia Tech Oct 2022

C++ for Programmers – Codecademy Oct 2023

Awards: "Best Cybersecurity Hack" at MHack16, a 24-hour hackathon with over 350 participants. Dec 2023

Technical Skills: Python, C, C++, Git, JavaScript, React, Svelte, SQL, AWS, Linux, Jira