JOE HEFLIN

email: joeheflin30@gmail.com | *linkedin:* linkedin.com/in/joseph-heflin | *github:* github.com/joeheflin

As a versatile Software Engineer, I quickly adapt to new environments and technologies. My passion lies in solving problems that elevate team and company mission and collaborating with a diverse set of cross-functional teammates.

EDUCATION

Duke University, Pratt School of Engineering   *8/17 - 5/21*
B.S. Electrical & Computer Engineering, B.S. Computer Science   *Durham, NC*
- Relevant coursework**:** Data Structures & Algorithms, Advanced Computer Hardware, Software Design & Implementation, Operating Systems, Eng. Software for Maintainability, Database Systems, Computer Networks

Coursera Courses
- Cloud Computing Foundations, Cloud Virtualization Containers and API   *3/23 – 8/23*

SKILLS AND CERTIFICATIONS

Programming Languages and Frameworks: Python, Java, Android Automotive
Certifications: AWS Certified Cloud Practitioner, SAFe Agile Software Engineering

PROFESSIONAL EXPERIENCE

Software Developer   *6/24 - Present*
General Motors, Software Defined Vehicle: Mechatronic Software Platform   *Detroit, MI*
- Built out full BSW software stack to support LLSI's critical to rollout of new company-wide vehicle software architecture.
- Synthesized feature requirements, design specification, and hardware schematics to support new api definitions for service teams.
- Refactored process for handling auto-generated code across hardware variants to reduce project complexity and bug generation due to variant management.

Software Developer   *5/23 - 5/24*
General Motors, Software Defined Vehicle: Infotainment Platform   *Detroit, MI*
- Built an Android application in Java using the Android Automotive framework to reduce routine component test time by 95%.
- Allowed developers and QA engineers to set vehicle signals and view their metadata quickly and easily.
- Developed unit test suite to ensure project maintainability and aid application debugging.
- Team utilized the Scaled Agile Framework using GitHub Git-based version control with JIRA issue tracking.

Software Architecture Engineer   *8/22 – 4/23*
General Motors, Vehicle Intelligence Platform Execution Mechatronics   *Detroit, MI*
- Designed a cross-functional strategy to enable modules to self-identify within the vehicle network. Collected and analyzed data comparing 7 possible designs to minimize cost and optimize functionality.
- Lead the development of an IO endpoint detection tool, slashing calibration generation time from hours to mere minutes and significantly reducing the engineering cost of adding IO endpoints.

Software Integration Engineer   *1/22 – 8/22*
General Motors, Vehicle Data Hub Software Integration Team   *Detroit, MI*
- Created a Python-based tool to simulate data loss and visually demonstrate system constraints. The data generated influenced strategic decisions, advocating successfully for increased bandwidth allocation for the Vehicle Data Hub feature in discussions with executive leadership.
- Collaborated closely with the development team to troubleshoot software changes using a test bench.

OTHER PROJECT EXPERIENCE

Senior Design Course: Designing Software for Maintainability   *1/21 - 5/21*
Software Engineer Intern: NLP application data ingestion   *5/20 - 8/20*