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| **Orbeen Alam** | **alamorbeen@gmail.com**  **(313) 327-6735 www.linkedin.com/in/orbeen/** |

**EXPERIENCE**

**GPD EXCEL Lab Systems Integration Engineer May 2025 – August 2025**

*General Motors, Global Tech Center - Warren, MI*

* Engineered an open-source AI-driven support assistant in Go to reduce LSIE wait times and empower lab technicians with self-service troubleshooting.
* Applied AI engineering principles to build a secure, context-aware tool confined to the Software Defined Perimeter (SDP), ensuring full intranet compliance.
* Engineered for scalability across lab environments, allowing seamless adoption regardless of setup.
* Translated lab technician feedback into practical features—automating common diagnostic workflows and reducing reliance on A&D support for iTest.
* Positioned the tool for future AI model integration and site logger connectivity to evolve into a fully autonomous lab assistant suite.

**GPD EXCEL Service Quality Engineer May 2024 – August 2024**

*General Motors, Global Tech Center - Warren, MI*

* Designed and implemented a comprehensive software solution for monitoring and analyzing CAN (Controller Area Network) and LIN (Local Interconnect Network) messages within automotive systems.
* Developed and maintained a standalone executable and python script, Parasitic Monitoring, that logs system power modes, captures ECU (Electronic Control Unit) current measurements, and generates detailed visual plots for diagnostic purposes.
* Installed and developed current measuring hardware, TubeAmps, onto automotive system benches for current monitoring of ECUs to tackle parasitic drainage of 12v battery systems.
* Worked closely with cross-functional teams, including hardware engineers and system integrators, to ensure the software met all technical requirements and functioned reliably in a production environment.

**GPD EXCEL Battery Systems Engineer May 2023 – August 2023**

*General Motors, Global Tech Center - Warren, MI*

* Designed and developed software for electric vehicle battery systems using Python and C++.
* Utilized GM’s proprietary Ultium battery technology to create scalable and modular software solutions for various vehicle segments and architectures.
* Applied software engineering best practices such as version control, code review, testing, and documentation.
* Supported software integration, verification, and validation activities using GM’s global EV platform and tools.
* Researched and evaluated new software technologies and trends to improve battery system performance and efficiency.

**Electronic Control Systems Engineering Co-Op May 2022 – May 2023**

*American Axle and Manufacturing – Detroit, MI*

* Developed and implemented battery management system (BMS) software for electric drive units using C++ and MATLAB/Simulink.
* Performed testing and validation of BMS functionality and performance using hardware-in-the-loop (HIL) and software-in-the-loop (SIL) methods.
* Collaborated with cross-functional teams to integrate BMS with other vehicle systems and components.
* Troubleshot and resolved software issues and defects using debugging tools and techniques.
* Documented and communicated software requirements, design, and test results to internal and external stakeholders.

##### EDUCATION May 2026

##### Purdue University

Bachelor’s of Science in Computer Engineering