

JOEL FERNANDES

Component Software Validation SME Engineer

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🌐 JoelFernandes

📍 Michigan



I have the opportunity to collaborate on software development projects with various GM engineering departments, both internal and external to the organization. With three years of experience as a Software Engineer, I specialize in designing, developing, and implementing software for real-time and embedded systems. Additionally, I have seven years of expertise in testing and verifying infotainment software. I am dedicated, talented, and possess a positive attitude towards my work, with a strong passion for this field. I am highly motivated to learn and explore new things, and I excel in both team-based and self-managed projects.

WORK EXPERIENCES

Component Software Validation SME Engineer

GM - General Motors
November 2021 – Present

- Identify and assist in the resolution of software issues in a variety of modules, including (AHOM, ALD, AMP, CHIM, CLD, CMP, CPL, CPM, DSAM, ESCL, FOPM, FSM, HVPO, ICCM, LWIR, MFC, MLD, NVM, OBCM, OHC, SAM, SAS, SWEM, V2H (DSB, MID, BDI, EVSE), VLM)
- Review, approve, and track software validation plans to ensure that vehicle milestone deliverables are met.
- Evaluate the supplier's software deliverables' capabilities to make sure they satisfy General Motors' requirements (CG2999, CG3000).
- Collaborate on software development projects with different GM engineering departments both within and outside the organization and provide informed advice on challenging issues and the newest testing methodologies.
- Maintain various tools to ensure team consistency.
- Report late or undersupplied software validation deliverables to PDT and management teams.
- Create PRTS issues to keep track of CG2999 issues.
- Participate in technology review meetings prior to supplier sourcing and assist in supplier decision making.

Software Engineer

Harman International
January 2018 – November 2021

- Design and implement vehicle components to meet customer requirements.
- Aided in customer interface for requirements clarification and issue resolution on unresolved CR's and software defects.
- Identified product requirement or performance issues as well as working with other software teams implement solutions to meet those requirements.
- Provided training and instruction to new employees and junior engineers, as well as technical support to Validation Test Team
- Internal and customer design reviews – implement review findings into software development and testing.
- Identified and resolved defects through log analysis, code inspection, and system debugging.
- Ensured software robustness by testing and validating software with end-to-end results and providing feedback to team.

Pre-Integration Software Testing

Harman International
January 2014 – January 2018

- Software verification testing of infotainment features (Connectivity, Tuner, GPS, Apps, HMI, Speech, Etc.). For one or more projects on infotainment modules (Subaru Starlink, CMC and Ferrari)
- Apply specifications, use cases, comparable products, and previously known bugs to create and maintain test plans, test designs, and test cases.
- Automated and regression testing – Expand automation scenarios for additional test capabilities.
- Setup modules/wiring and maintains test benches and test fleet vehicles.
- Performed benchmark testing against other competitor vehicles for Connectivity.
- Project management and project performance management tools utilized to execute and plan to test
- Collect and analyze logs as necessary for issues found, as well as report issues on defect tracking system.
- Maintain up-to-date knowledge of leading new technologies among infotainment systems (Android Auto, Apple Car Play, Mirror Link, SDARS)
- Supported customer demo and test drives.

Infotainment Test Engineer

Johnson Control Inc.
May 2010 – July 2013

- Analyzing and debugging issue thru QNX and Linux operating system.
- Coded using C to fix issues and implement features thru Eclipse.
- Used Python to write scripts to run automation testing.
- Reported and logged issues into a bug tracking system and attached logs into the tracking.
- System for later analyzing and debugging.
- Analyzed Bluetooth traffic over the Air thru Frontline tool software. (www.fte.com)
- Familiar with the Latest smartphones (Android, iPhone, Blackberry, etc.) IOP
- Worked Honda, Mitsubishi and Mazda OEM and Head units (Panasonic, Visteon, Clarion etc.)

New Clinton Auto Sales/Service

New Clinton Auto Sales/Service
July 06 – May 2010

- Performing Dealer website maintenance and upgrades.
- Creating advertisements on the various website and for publications.
- Upgrading and maintaining Dealer database.
- Performing automotive diagnostics analysis, repair, and maintenance.
- Maintain an excellent customer satisfaction rate with virtually zero comebacks. Interface professionally and communicate effectively with customers.

SKILLS

Technical

C++, C#, Python & Java

Object-Oriented Programming & Design

Analytical skills: Good logic problem-solver

Software Testing, Debugging and end to end test execution

Knowledge of Bluetooth, Connected Car (Carplay and AA), CAN

Web Design & Development

Software

Microsoft Office, Visual Studio, Android Studio, Eclipse and Netbeans, Github, Dreamweaver, Adobe Photoshop, Adobe Illustrator, Doors | TMS (JIRA) and Confluence

EDUCATION

B.S in Computer Science
UNIVERSITY OF MICHIGAN:
DEARBORN
2018

LANGUAGES

English

Hindi

INTERESTS

Travelling

Mountain Biking

Flying Drone