Arun Kumar K

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Objective:

Result-oriented MATLAB Developer with 4 years of experience in the Automotive Domain. Strong understanding of Model-Based Development on MATLAB Simulink. Looking for a job change to be associated with a progressive organization that utilizes my knowledge and skills and also provides an opportunity to learn new things and enhance my existing skills.

Professional Summary:

- Solutions focused and result-oriented B.E. Electronics and Communication Engineering professional offering 4 years of a successful career distinguished by commendable performance and proven results in the MATLAB domain.
- Experience in Model-Based Development in MATLAB Simulink for engineering applications.
- Good debugging skills and testing experience in Unit testing – Model in Loop, Software in Loop testing (MIL & SIL) using Matlab.
- Experience in developing a Hand Code and Auto Code components based on customer inputs and testing the code and model in SIL and MIL tools respectively.
- Experience in Auto Code Generation using Embedded coder.
- Experience in solving defects and providing root cause and corrective action for the same.
- Experience in writing Software, Architecture and Low level requirements (LLD) for Hardware and Software development activities in DNG.
- Good interpersonal, communication, and organizational skills.
- Willingness to accept multiple responsibilities and fulfilling the expectations for all the responsibilities delegated.
- Strong engineering fundamentals and Calculations.

Technical Skills:

- MATLAB Simulink
- Embedded Coder
- Davinci Developer
- MXAM
- Polyspace
- MIL/SIL
- Engineering Fundamental

Work Experience:

I worked as MATLAB Developer in TATA ELXSI from Dec-2019 to Dec 2023.

- Model-Based Development using MATLAB/Simulink.
- Verification and validation of Simulink models.
- Well versed with MAAB Guidelines for Model-based development.
- Well versed with MBD and AGC Procedure for Model-based development.
- Experience in analyzing the code and checking the code quality using Polyspace.
- Basic knowledge of CAN, ASIL, Safety Class and AUTOSAR architecture.
- Experience in MIL and SIL Testing.
- Working on Agile methodologies and V- of software development.
- Good understanding of different phases in the Software Development Life Cycle.
- Experience in Logic developing, Simulink model enhancing, and debugging the model.
- Requirement Analysis

Education:

- ***Bachelor's of Electronics and Communication Engineering*** with ***first-class distinction*** from Nitte Meenakshi Institute of Technology, Bengaluru in 2019.

Projects:

Project 1	**Nexteer EPS (Electric Power Steering)**
Description	This project aims to develop a model as per client requirements, Simulate and to test its functionality in an Electric Power Steering system for Nexteer.

Roles & Responsibilities:

- Analyzing and understanding component level requirements.
- Update Software design documents as per changes in requirements.
- Developed Simulink model components (Hand code and Auto code) according to the requirements.
- Used Davinci developer tool to update DD variables and other interfaces.
- Creating of frame model using MBD tool.
- Examine the Model and its guidelines with the MXAM report.
- Verify the MAAB guidelines with the model advisory report.
- Software design requirement linking to the model to ensure the traceability.
- Analyzing the code and checking the code functionality using Polyspace reports like Bug finder, Code Prover and Metrics.
- Reviewing the design and Implementation artifacts.

- Performed MIL and SIL testing on the developed model and generated code respectively.
- Artifacts delivering and Baselining in RTC.

Project 2	**Nexteer Topdown Requirement Management**
Description	This Project involves Sw Requirement analysis and classify the requirements for EPS artifacts.

Roles & Responsibilities:

- Requirement analysis.
- Classification of high level and low level requirements.
- Documentation of LLD, SRS and SwArch requirements.
- Deletion of duplicated requirement.
- Writing the component and element level requirements for a system.
- Drawing a component's Visio diagram
- Creating/Updating static and dynamic architecture diagrams.
- Updating requirement attribute columns (Traceability link, ASIL, Safety Class, Author comments, Functionality) for every requirements in LLD, SRS and SwArch document.
- Final Structuring of SRS documents based on requirements types(Inputs, Outputs, Functional, Non-functional, Execution, Diagnostic and NTC)

Hobbies

- Listening to songs, Playing Cricket and Volley Ball, Painting, Learn New Technology.