

Akhilesh

AUTOSAR Embedded Software Engineer



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Summary

Professional Automotive Embedded Software Developer with 3 years of relevant experience in multiple layers of AUTOSAR and virtual Base Software Development for SiL

Professional Experience

Senior Engineer [vBsw Developer],
Bosch Global Software Technologies

11/2022 – present | Bangalore, India

Design and Development of virtual Base Software Components to construct virtual ECU's for various customer projects, aimed at substituting the current hardware-dependent layer with a PC based environment for Software-in-the-Loop[SiL] simulations.

- Design, Implementation and Feature upgradation of vCDD, vASIC and vCOM, vRam modules/components.
- Debugging and testing of components/vEcu [Silver, Eclipse]
- Development of script/program in Perl, Python, and Java to generate appropriate configuration files for vBsw components
- Automation tool development for process automation.
- Defect analysis and Bug fixing.

Tools Used: Silver | Eclipse | Github | MinGW | Jira

Engineer [AUTOSAR Software Developer], *Tata Elxsi*

02/2021 – 11/2022 | Trivandrum, India

Design and Development of Application Software Components, CDD, and MCAL components starting from requirement analysis to functional Testing

CDD development for Electronic Power Steering ECU

EPS ECU Software Development for the leading Tier 1 supplier using Infineon Aurix TC367x microcontroller.

- Handled the development activities of Microcontroller diagnostic modules such as Flash & DMA.
- Requirement analysis.
- UML Model designing using Enterprise Architect.
- Functional Safety analysis [DFMEA & DFA] as per ISO 26262.
- AUTOSAR, MISRA, and CERT C -compliant implementation of CDD modules.
- Static analysis of code using Pclint and PolySpace.
- Unit Testing using Vector Cast.
- Testing in hardware using Trace32 debugger.

MCAL driver and Application component development for Radar ECU

An Autosar 4.3.1 MCAL project cum SWCs development of Voltage and temperature monitoring for the leading Tier1, using a Radar chip from Uhnder.

- Developed application software components for temperature and voltage monitoring
- SWC's development has been realized using System Desk along with EB TresOs tool
- UML Model designing using Enterprise Architect.
- AUTOSAR, MISRA C compliant implementation of driver and application component modules.
- Static analysis of code using QAC.
- Unit Testing using CANTATA.
- Testing in hardware using Trace32 debugger.
- Defect analysis and Bug fixing.

Tools Used: PTC Integrity | DoorsNG | SystemDesk | EB TresOs | Enterprise Architect | DaVinci Configurator | HighTec | GHS | Trace32 | Cantata | QAC | PolySpace | Reqtify | Git

Skills

Embedded C Programming | Python | Software Component Modelling | Unit Testing
Functional Testing | Static Analysis | Version Control | Debugging | Software Architecture Design

Training and Certification

Advanced Embedded Systems, Vector India Bengaluru, India
Undergone professional training in Advanced Embedded Systems for a period of one year.

Topics Covered: *Embedded C, 8051, Linux, Arm, UART, I2C, SPI, CAN*

Education

B.Tech Electrical and Electronics Engineer, APJ Abdulkalam Technological University Kerala 2015-2019

Awards

Ace Performer, Bosch Global Software Technologies
Demonstrating ownership by accepting new responsibilities (in vCom, vEpm, varam, vEnvRam etc.) and showcased great Commitment & Enthusiasm.

Bravo, Tata Elxsi
Received Bravo Award for handling the Approach analysis, Design and Implementation of SWC's in the project.

Declaration

I hereby declare that the above-mentioned details are true and correct to the best of my knowledge.



Akhilesh N
Banglore, 20/Dec/2023