BALA N V GRANDHI (H1B Visa Holder)
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JOB OBJECTIVE

Software Developer with a valid H1 B Visa, seeking a challenging role in an organization of repute to leverage my Product Development and Realistic Application skills in line with the organizational growth plan.

PROFILE SUMMARY

- Over 3 years of extensive Embedded Software Professional experience encompassing Software Development & Testing, Documentation, Software Development Process, Architectural Designing, and Team Collaboration skills across Automotive Industry
- Hands-on experience in handling cross-functional project core teams and relays status to team members and management regarding the status of software projects, and maintaining working relationships with team members to define the scope, timeline, and resources required for projects
- Proficient in developing and maintaining test cases/procedures and related documentation for testing of all automotive infotainment systems, and creating detailed system architectures and dynamic use cases and have them reviewed and approved
- Able to adapt to multi-cultural and multi-lingual background with strong interpersonal, communicative, analytical, mentoring, and leadership skills

TECHNICAL SKILLS

Programming Languages:	Embedded C, M-Scripting, basic Python, and SQL
Architectures:	AUTOSAR, UDS, and Overview of ISO 26262(Functional Safety)
Micro Controllers:	Infineon (Aurix), Texas Instruments (Hercules & Delfino), Renesas and ARM
IDE's:	Eclipse, Code blocks, Code Composer Studio, Visual Studio, GreenHills & WinIDEA
Version Management:	SVN, GitHub, and BitBucket (Tortoise, Source Tree)
Debuggers:	GDB, Miniwiggler, Lauterbach, BlackHawk, and TI XDS 110
Compilers:	Windriver, GCC, ARM compiler, TI C2000 compiler, and GreenHills
Testing:	Unit Testing and Integration Testing
Vector Tools:	Davinci Developer and Configurator, Canalyzer, Canoe, and Candela Studio
Misc Tools:	TRACE32, Microsoft Visio, MATLAB, SimulinK, Understand, CanKing, and JIRA

WORK EXPERIENCE

Currently associated with **ITK Engineering GmbH (subsidiary of Bosch GmbH)** since September 2017

Roles:

- Embedded Software Engineer, Rulzheim, Germany since February 2020
- Embedded Software Engineer, Novi, USA from September 2017 to January 2020

Responsibilities:

- Implementation, development, and testing of several AUTOSAR modules for multiple automotive products for wide range of markets
- Special focus on diagnostic services, LIN communication stack and GPIO peripherals
- Effectively interacted with team members and worked in close association with clients to understand requirements and address their issues
- Support software testing, Documentation, worked with test hardware and different toolchains
- Low level Software design and development in accordance with functional safety standards (IS0 26262), MISRA -C, use and implementation for various embedded systems
- Occasional assistance on Hardware schematic reviews, custom made hardware debug, project management and system deployment

Projects:

Diagnostic Services Implementation for Actuator and Kinetic ECU

- Specification and implementation of OEM Specific Diagnostic services.
- Configuring the DCM and creating of SWC's for specific Diagnostic synchronous routines.
- Developed Routines for handling the Diagnostic RID's and test the same for implementation.

LIN Communication Setup for Climate Control ECU

- Developed Specification and implementation of LIN communication stack
- Configured the LIN stack based on the requirements from Customer and test the implementation for successful LIN communication

Inverter BSW development for BLDC motor control

- Developed HAL layer for TI micro controllers for motor control application including temperature and current sensors, power supply chips, resolver IC's
- Meticulously developed custom bootloader, flash algorithm and inter-processor communications
- Worked on various peripherals like GPIO's, Timers, ADC's, DAC's, SPI, PWM and CAN
- Improved efficiency by investigating the code and reducing the CPU overhead time
- Compiled an automated test suite for checking all the components on a custom-made hardware board

Earlier Experience:

Firmware Engineer (Contract), **EASi LLC**, Michigan from April 2017 - September 2017

Project:

BSP development for Migration of Legacy T86 TCM architecture to AUTOSAR compliant software for Infineon TC29x

- Designed and developed low level drivers for Transmission control module for the year 2020 model car
- Developed embedded software compatible with AUTOSAR for Infineon Aurix microcontroller
- Created BSP for different communications and micro system modules such as SENT communication module, BIST module and NVM module
- Carried out UML based design, software development, debugging using Lauterbach and performed unit, Integration testing following V-Model

ACCOLADES

- Recognized for the work rendered and selected by the Internal team to work from the Headquarters in Germany during my tenure with ITK Engineering

TRAINING & CERTIFICATION

- VECTOR certified AUTOSAR Classic Basic and Practice Trainee engineer
- Managing Big Data with MySQL by CourseEra

EDUCATIONAL DETAILS

- Master of Science in Electrical Engineering | University of Houston, Texas in 2016
- Bachelor of Technology in Electronics & Communications | K L University, Hyderabad in 2015

PERSONAL DETAILS

LinkedIn Url: https://www.linkedin.com/in/bala-g-462b4880
Languages Known: English, Hindi, Telugu, and basic German