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### PROFESSIONAL SUMMARY:

* Around **5.5 years** of experience as an embedded software professional.
* Extensively worked on embedded real-time systems, software applications design, development, coding, and test engineering.
* Developed software using **C, C++, and Assembly** programming languages.
* Sound knowledge on embedded communication protocols **CAN, LIN, FLEXRAY and E2E**.
* Hands on experience in Integrated Development environments such as **MS Visual Studio, Code Composer Studio IDE, MATLAB Simulink, State Flow, MS Visio**.
* Worked on testing tools like **Cansniff, CPS**.
* Writing test scripts using PYTHON, CAPL and test plan for the product performance check.
* Experienced in **ARM11 and ARM9** architecture.
* Experience in development of system Software Requirement **in DOORS** and Software Design document in **Rhapsody**.
* Experienced in Hardware and Software design of **microcontroller** embedded systems.
* Excellent Knowledge of **debugging** the hardware / software modules.
* Exposure on Software Life Cycle Model Agile & Water Cycle
* Expertise **on Module testing, Integration testing, system testing, performance testing, Inter-operability testing & Compliance testing**.
* Experienced with various communication standards such as **LIN RS232 and RS422** serial communication standard**, I2C, SPI, CAN**.

### EDUCATION:

* Master’s in Computer Science, University Of Central Missouri.
* Bachelor’s in information technology, Vignan’s Foundation for Science and Technology.

### PROFESSIONAL SKILLS:

**Languages and Scripts:** C / C++, Python, C#, Embedded C, MISRA-C, Perl, CAPL, Unix, Awk

**Hardware Platforms:** PowerPC**,** MIPS, x86,ARM, RCM2200, Rabbit Processors,8051.

**Protocols:** CAN, OBD, RS-232, I2C, SPI, SAE, RS485, UDS, GM LAN, Flash

**Tools:** Emulator, Simulator, QAC, ECAD, Makefiles, Debugger, Jira, MS Visual Studio, Eclipse, GDB, JTAG, TRACE-32, VSS, CVS, CANOe, MATLAB, LabView, Microwind, LT Spice, P Spice, Xilinx ISE, Electric EDA, VoltLab, PCB design, DOORS, ECU.

**Embedded OS:** QNX, VxWorks, RT Linux, Nucleus, WinCE.

### PROFESSIONAL EXEPERIENCE:

**Role: Embedded software Engineer April 2022-Till date**

**Client: Comcast-PA**

**Responsibilities:**

* Hand-coded algorithms using C/C++ programming language.
* Developing application software using C/C++.
* Worked on IAR Embedded Framework to generate firmware C code based on algorithms
* Analyze CAN messages using Vector tools CANaylzer and CANoe.
* Worked on SPI, RS-232, USART/UART, WIFI, Bluetooth Low Energy (BLE).
* Configured the CANalyzer simulation in consonance with the requirements, performed the tests and Root caused the infotainment issues across LIN and CAN protocols while testing.
* CAN Driver integration and maintenance.
* Developed a hardware interface test automation framework using Linux/Python
* Implemented the I2C protocol in Python 2.7 on Linux and used USB 2.0 Programming.
* Involved in SDLC process like requirement analysis, designing, coding, testing, releasing and providing maintenance, and documentation at each stage.
* Writing test Case in IBM rational DOORS.

**Environment:** C/C++, Agile Methodology, Python, BLE, IAR.

**Role: Embedded Engineer Jan 2020-Dec 2021**

**Client: Celestial Systems Pvt. Ltd, Bengaluru, India**

**Responsibilities:**

* Working as an I/O processing and diagnostics qualification software developer. Developed embedded control system software to implement robust diagnostic strategies that could meet the OBD regulations.
* Involved in font design creation for the letters, characters and image for the different languages in menus.
* Developed communication protocol to communicate between Cluster and PC.
* Worked on Testing the complete functionalities related to HMI like peripherals, vehicle history and Functionalities which are related to Infotainment system like FM Radio, USB, IPOD connection, SD card connection to Car Infotainment system
* Validate the test cases and Automation of test cases using CAPL scripting
* Code review at meetings and ensure correct implementation and follow-up on any concerns.
* Knowledge of wireless and networking infrastructures including Physical Layer, Data Link Layer (MAC), Network Layer, and Transport Layer (IP). Working knowledge of 802.11 Wi-Fi a/b/g/n/ac standards
* Dynamic modeling and analysis, Numerical simulation using MATLAB and control system design for a simple project.
* Developed various specifications such as (CANbus, test specifications, product requirements, and test procedures).
* Validated the control logic and CAN communication using CAN bus monitoring software named CANKing.
* Updated the data in DOORS by importing, and reviewed these requirements by exporting and familiar with Aspice.
* Activities involve Development, Design, Code, and Bug fixes, Code Optimization, Debugging and Manual Testing.

**Environment:** CAN Sniff, DOORS, CANBUS, Linux, HMI, CAN Analyzer, Wi-Fi, Python, MATLAB /Simulink, C/C++