MallaReddy
EMBEDDED ENGINEER
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PROFESSIONAL SUMMARY:

- Around 8+ years of experience in Embedded Systems.
- Experience in advanced level programming in C/C++ including thread synchronization, multithreading, multi - processing, concurrency and TCP/IP Socket Programming.
- C, C++, Python and assembler programming of custom and COTS embedded systems using GNU, Eclipse, NetBeans and TurboC++ tools. Scripting using Python, Ruby and Bash.
- Embedded development with Marvell Armada 370, TI AM335x ARM Cortex A8, Intel IXP425 ARM, ST ARM Cortex M3, 8051, i960, DSP56K, Z80 and 68HC11 CPUs.
- Embedded development with A6N2, A5N2, TPMS, Motor grader and AT.
- Development and testing software using CANoe and CANalyzer tools. Testing with CAN, J1939, Target Process and other data link protocols. Good understanding of Communication standards such as DOCSIS and digital data transmitters such as ADSL.
- Experience with development and Implementation of In-Vehicle infotainment.
- Rich experience in automotive domain processes & MISRA-C coding guidelines. Good understanding on automotive standards and protocols OSEK.
- Good Experience on Human Machine Interface (HMI) development.
- Linux Kernel loadable module programming, socket programming, Network driver's development and Unix IPC.
- Excellent knowledge of preparing test Procedures, test cases for module system testing/software Integration testing (Manual and automated). Good understanding knowledge on RDK environment.
- Bluetooth Low energy application interface development.
- Hands on Experience in writing Scripts using PERL, Python Scripts.
- Good understanding on product development life cycle and Software Engineering Process. Familiar with Agile methodology and Waterfall Model.
- Good management skills, demonstrated proficiency in leading and mentoring individuals to maximum levels of productivity, while forming cohesive team environment.

TECHNICAL SKILLS:

Languages: C/C++, Embedded C, Assembly, MATLAB, Processor Architectures: ARM11, Intel 8051 Microcontroller, General 8bit, 16bit and 32bit architectures, Verilog & VHDL
Platforms: Windows, Android, Linux, RTOS, UNIX.
Testing Tools: CAN analyzer, Oscilloscope, Logic analyzer, Vector CANoe.
Debugging Tools: TRACE 32, JTAG, Microsoft Visual studio.
Hardware tools: Real View ICE

Protocols Awareness: RS232, RS422, SPI, I2C, CAN, KWP 2000	
RTOS: QNX, VxWorks 5.x, RT Linux, Nucleus, ThreadX	
BUG Tracking Tools: Bugzilla, IBM Clear Quest, GIT	
Microcontrollers: Atmel 8051, ATmega328P (Arduino Board), PIC16c57c (Basic Stamp), ARM Cortex-A8, PLC (Allen Bradley)	
Embedded IDEs: Kiel IDE, IAR GHS, Eclipse, SDE	
Others: Good knowledge on Data structures, BSPs, Firmware, Verification and Validation (V & V)	

PROFESSIONAL EXPERIENCE:

Emerson, St. Louis, MO   **May 2022 – Present**
Role: Embedded Engineer

Responsibilities:

- Designed, developed and tested embedded firmware for simultaneous AC motor system written in C and C++ running on PowerPC.
- Transformed specification requirements and other documents into viable system architecture, requirements description, and then developed into software for module.
- Developed embedded test software for avionics equipment using Embedded C, Green Hills Integrity RTOS and Assembly.
- Created test cases for database that was a leading factor for helping designers fix defects and update specifications.
- Work closely with product test team to verify hardware test covered customer specifications.
- Resolve software and hardware defects by working closely with other engineers to investigate, assign, and resolve defects which put project back on schedule.
- Implemented test procedures that verified and hardware and systems for video/audio router module without
- Developed firmware specifications from product requirements documents that help hardware engineers and debug initial prototypes.
- Written design documents utilizing Software Process Management (SPM) methodology for critical operational Requirements for Embedded Software.

Environment: C/C++, Eclipse, VxWorks 6.8, Linux, GCC, NIOS-2, UML, ClearCase, Cpptest.

Medtronic, Minneapolis, MN   **Sep' 2019 - April 2022**
Role: Embedded Engineer

Responsibilities:

- Developed embedded software in C for a Class II medical device with 32-bit ARM 720T and ARM Cortex-A8 AM3352 MCU.

- The firmware runs on Micrium µC/OS-II RTOS. Developed multiple tasks communicating via RTOS message queues.
- Ported bootloader written in GNU C
- Debugged the firmware with JTAG-Jet, RS232 and Oscilloscope.
- Trained team members on PTC MKS Integrity. Utilized Coverity and Parasoft for static analysis.
- Integrated MISRA rules for a safer firmware. Performed code reviews.
- Wrote driver for Numonyx M29W128GH flash memory.
- Wrote Hardware Abstraction Layer software modules for WDT, Timers, GPIO, ADC, DAC, UART, SPI.
- Wrote inline assembly routines to dump stacks when an ARM exception occurs.
- Analyzed and concluded Customer Experience Reports.
- Interviewed candidates. Managed/led a team of software engineers, performed annual performance reviews.
- Trained team members on 62304 compliant software process and tools. Actively participated in project planning and customizing a software development life cycle process compliant with 62304.
- Used GIT and Perforce SVN to manage code and collaboration with team members.

Environment: Python, Java, embedded c, Linux, SQLC, C++, CDS, GIT, SVN Linux, ZigBee, Zwave, Jenkins.

Godrej Agrovet, AP,India   **July 2013 - August 2019**
Role: Embedded Engineer

Responsibilities:

- Developed embedded C/C++ code to interact controller according to requirements.
- Well versed in device communication protocols such as USB, Ethernet, Wi-Fi and Bluetooth.
- Responsible for the implementation of IEEE 802.1 a/b Standard under Ethernet based network.
- Worked on BSP development.
- Responsible for the implementation of Audio/Video Subsystem with respect to HD set-top Box decoder.
- Functional testing in CANalyzer and CANoe simulation devices.
- Implemented Low-level kernel RTOS debugging with GDB.
- Control feedback algorithm design and testing using MATLAB
- Developed Network, Serial, and Parallel and Mouse drivers for Linux 2.4 kernel.

Environment: ARM, Wi-Fi 802.11, Bluetooth, CAN, CANOe, Linux kernel, IEEE, C, C++, BSP

Malla reddy

- Auburn Hills, MI, US

Contact Information

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- 9792464784

Work History

Total Work Experience: 10 years

- **Embedded Engineer Emerson, St. Louis, MO**
  May 01, 2022

- **Embedded Engineer Medtronic, Minneapolis, MN**
  Sep 01, 2019

- **Embedded Engineer Godrej Agrovet, AP,India**
  Jul 01, 2013

Skills

- **c** - 8 years
- **c++** - 8 years
- **embedded c** - 8 years
- **embedded systems** - 8 years
- **audiovisual** - 7 years
- **business requirements** - 7 years
- **debugging** - 7 years
- **engineering** - 7 years
- **qa** - 7 years
- **rtos** - 7 years
- **linux** - 7 years
- **bluetooth** - 6 years
- **bsp** - 6 years

- **ethernet** - 6 years
- **gdb** - 6 years
- **ieee 802.11** - 6 years
- **linux kernel** - 6 years
- **matlab** - 6 years
- **set-top box** - 6 years
- <mark>usb</mark> - 6 years

Work Preferences

- Likely to Switch: True
- Willing to Relocate: True
- Travel Preference: 100%
- Work Authorization:
  - US
- Work Documents:
  - Have H1 Visa
- Desired Hourly Rate: 63+ (USD)
- Security Clearance: False
- Third Party: True
- Employment Type:
  - Contract - Corp-to-Corp
  - Contract to Hire - Corp-to-Corp

Profile Sources

- Dice:
  https://www.dice.com/employer/talent/profile/550d39abb17a44de34f8aa2c8840a4de