

Job Description

SENIOR EMBEDDED SOFTWARE ENGINEER

Melbourne-Mnemonics-Inc.

US CITIZENSHIP REQUIRED

SUMMARY

The Senior Software Engineer designs and implements advanced hybrid analog/digital embedded electronic systems to create products meeting Mnemonics marketing objectives. This engineer participates in initial product conception; formulation of functional and performance requirements; project scheduling and resource allocation; software/hardware design; implementation; hardware/software commissioning, integration, and debug; testing; and the transition to Manufacturing. The engineer is expected to conduct product development in accordance with Mnemonics quality, configuration management, and development life-cycle processes. This individual has the responsibility and authority to perform the assigned tasks listed below.

ESSENTIAL DUTIES AND RESPONSIBILITIES

- Receive and understand communications, control and general hardware/software requirements to be implemented in embedded systems.
- Provide time estimates for all activities.
- Code and document embedded software implementation to match requirements.
- Work with Quality Assurance team to implement test cases and validate software.
- Provide full product lifecycle support for legacy products including bug fixes and feature updates.
- Propose design concepts for next generation products.
- Work closely with Software, Electrical and FPGA team members to ensure that new products meet all key product requirements.

- Responsible for participating in the quality management system initiatives and adhering to all requirements.
- Responsible for performing other related tasks deemed necessary by superiors.

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

QUALIFICATIONS, EDUCATION AND EXPERIENCE

- Bachelor's Degree in Computer Science, Computer Engineering or Electrical Engineering. Master's preferred.
- 10+ years of experience working with 8/16/32bit MCU/MPUs with the ability to work with multiple families including ARM-16/32, MIPS-32, 805, PIC, Z80/Z8, MSP430, MSP432.
- 10+ years of experience working bare-metal designs as well as with simple RTOS (Free RTOS, Micrium uC OS II/III Linux, Micro-Linux).
- 10+ plus years of experience code development in ANSI/MISRS C, embedded C++ and Assembler language.
- 10+ years of experience in developing/simulating DSP algorithms in Matlab/Python and Simulink with algorithm development including digital signal processing.
- Highly Proficient in all aspects of FPGA design and verification and should have in-depth familiarity with

Xilinx FPGAs, particularly the Virtex, Spartan and Kintex product families, and in-depth knowledge of development tools including Xilinx Vivado, as well as source and revision control tools.

- Expert in VHDL and Verilog Implementation of DSP modules in FPGA's.
- Expert with MIL-STD-1553, Ethernet, USB, RS-232, I2C and SPI communication systems requirements at the driver and application level.
- Experience with requirements derivation and documentation.
- Experience with DOORS, ClearCase, ClearQuest, Git, LabWindows or LabVIEW
- Experience with DO-178B or DO-178C development processes.
- Due to sensitivity of customer related requirements, U.S. Citizenship is required.
- Must be able to obtain and maintain a DOD Secret Clearance.
- Excellent working history with cross functional teams.
- Excellent oral and written communication skills.

E-Verify

Job Type-Full Time

9/80 work week

Drug Free Workplace Salary: \$45 to \$55 / hour

E.O.E: race, color, religion, gender, age, national origin, gender identity, individuals with disabilities, veteran status, protected veterans or disabled veterans.