



EMBEDDED SOFTWARE ARCHITECT

Corporate Description

MANNARINO Systems & Software Inc. is a leader in providing safety-critical systems & software engineering services to the aerospace, defense, space, simulation & power generation industries. We work with many of the top players within their industries giving our employees exposure to the most interesting and challenging development projects. This stimulating and invigorating working environment allows our team to be at the technological forefront constantly broadening their expertise and honing their skillset to fulfill the ever-growing global high-tech market needs.

The MANNARINO culture is focused on high quality, hard work, professionalism and team work within a highly respectful, motivating atmosphere geared towards long-term business growth.

BENEFITS:

- a comprehensive group insurance and RRSP plan
- a flextime policy with paid overtime
- discretionary bonuses
- a fitness reimbursement program
- other office perks such as catered weekly lunches and free hot beverages (espresso, coffee, hot chocolate and tea)
- regular company outings

MANNARINO is a privately-held Small & Medium Size Enterprise (SME) and was recently awarded the [AIAC's Innovation Technology Award](#)

Career Opportunity and Primary Roles / Responsibilities

The embedded Software Architect is to support the design and specification of hard-real time embedded software for on-going Aerospace projects:

- Design Overview and Lead Architecture for embedded real-time system projects
- Select the appropriate technologies to meet the project need
- Reverse engineer and document existing architectures
- Ensure the use of appropriate standards, processes, procedures and tools throughout the product development life cycle. Interfacing with customers, suppliers, application users and other technical and support personnel may also be required.
- Work independently and in collaboration with other team members and project stakeholders.

Required Competencies

- Bachelor's degree in related engineering disciplines from an accredited institute (Computer science or software engineering preferred)
- Significant knowledge in C and C++ programming language.
- Practical experience in software engineering techniques and design methodologies
- Significant experience with Real-Time operating systems, for example:
 - Kernel development contribution.
 - Kernel configuration.
 - Board support package or device driver development
- Experience with embedded systems including hardware/software integration
- Experience with hard real-time systems designs
- Ability to communicate effectively in English (oral and written)

Other Competency Assets

- Knowledge of Aerospace systems and architectures
- Knowledge of RTCA/DO-178C or other safety-critical software life cycle process
- Knowledge of Integrated Modular Avionics (RTCA/DO-297, ARINC 653, ARINC 661, ARINC 664)
- Knowledge of Communication Protocols (UAVCAN, Ethernet/AFDX, ARINC 429, RS 422, CANbus and USB 2.0)
- Knowledge of middleware's such as DDS
- Knowledge of scripting languages such as Python

Miscellaneous Requirements

- Occasional travel required to customer sites (usually within North America)
- Possibility of assignment to customer site within the Montreal area
- Must be eligible to work in Canada

At Mannarino, we believe that passion and a desire to learn is crucial. Diversity of thought and experiences leads to innovative solutions and creativity. This is why we would like to encourage all those interested to apply.

Please submit your application by

E-mail: rh@mss.ca

*We are an equal opportunity employer.
All applicants will be held in strictest confidence.
Only those selected for interview will be contacted.*
