



## **EMBEDDED SOFTWARE DEVELOPER – REAL TIME OPERATING SYSTEM**

### **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 and off-site placement premiums
- 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 software engineers/analysts are to support the development of embedded software for on-going Aerospace projects including Flight Management Systems, Fuel Management Systems, Health and Usage Monitoring systems, Real-Time Operating Systems, and Ground Collision Avoidance Systems. The positions are based in Montreal.

- Design, develop and maintain software based on system specifications (low-level operating system software components).
- 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.
- Although the primary role would be to develop embedded software, opportunities for professional growth in other areas like software verification, systems engineering, and aircraft simulator development when needed.

## Required Competencies

- Bachelor's degree in related engineering disciplines from an accredited institute (Computer science or software engineering preferred)
- Significant knowledge in C programming language.
- Experience in software engineering techniques, design methodologies (including UML to communicate ideas and architecture) and software development practices (e.g. Waterfall, Agile)
- Significant experience with Real-Time operating systems, for example:
  - Kernel development contribution.
  - Kernel configuration.
  - Board support package or device driver development
- Experience in the use of emulators and logic analyzers
- Experience with a range of chipset architectures
- Experience with embedded systems including hardware/software integration
- Ability to communicate effectively in English (oral and written)

## Other Competency Assets

- Experience with other programming languages (e.g. C++, Assembly, Ada, Python)
- 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 (Ethernet/AFDX, ARINC 429, RS 422, CANbus and USB 2.0)
- Experience developing Eclipse plugin-ins
- Experience with continuous integration principle and tools
- Experience with Linux, VxWorks, Integrity or  $\mu$ C/OS-II
- Ability to communicate effectively in French (oral and written)

## 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](mailto:rh@mss.ca)**

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

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