AIRCRAFT SIMULATION ENGINEER/ANALYST

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.

As a member of our team, you will benefit from:
- a comprehensive group insurance and RRSP plan
- a flextime policy with paid overtime and off-site placement premiums
- discretionary bonuses
- a fitness reimbursement plan
- other office perks such as catered weekly lunches and free hot beverages.

MANNARINO is a privately-held Small & Medium Size Enterprise (SME) *named among Canada's top SME Employers since 2015.*

Career Opportunity and Primary Roles / Responsibilities

We are currently seeking simulation engineers/analysts to work on several on-going aircraft simulation projects to support the development and testing of various aircraft simulator. The positions are based in Montreal.

The candidate's excellent technical skills will be used to develop, test and maintain simulation software based on aircraft functional sub-system specifications. Primary responsibilities include reading and understanding aircraft systems specifications, develop, debug, update, and test the aircraft sub-system simulation in accordance with company and industry standard methodologies. Involvement in all aspects of the simulator development life cycle is expected:
- Requirements: Review system requirements and collect data for preliminary design
- Design: Develop the initial design and prepare for preliminary design review. Finalize detailed design and prepare for critical design review.
- Code & Test – Code required software modules for each sub-system and perform software module unit testing. May also include integration and testing of stand-alone utilities or small sub-systems independently prior to integration onto the aircraft flight simulator
- Hardware/Software Integration – support hardware/software integration on simulator, create and run acceptance test procedures for each sub-system
- Initial Product/Customer Acceptance – Correct any deficiencies within each sub-system and finalize acceptance test procedures
- On Site Acceptance – Complete final updates to simulator documentation packages, assist with final simulator acceptance

Interfacing with customers, suppliers, application users and other technical and support personnel may also be required. The candidate must be able to work independently and in collaboration with other team members and project stakeholders. Excellent communication and technical skills will be required.

Although the primary role would be to develop aircraft sub-system simulations, opportunities for professional growth in other areas like software development, software verification, and systems engineering may arise.

Required Competencies

- Bachelor's degree in computer science or related engineering disciplines from an accredited institute
- Experience in software engineering techniques, design methodologies and software development practices (e.g. Waterfall, Agile)
- Significant experience with C and C++ Programming Languages
- Working experience with an Integrated Development Environment (e.g. Microsoft Visual Studio, Eclipse, GCC)
- Knowledge of 'scripting' languages and environments typically used for test script development (e.g. Python, , Google C++ Testing Framework)
- Good troubleshooting skills.
- Strong analytical skills.
- Excellent Communication Skills
- Ability to report work status concisely and accurately to the Project Manager as requested
- Self-Motivated Team Member

Other Competency Assets

- Experience with other programming languages (eg. Assembly, Ada, C#, Microsoft .Net/WPF)
- Ability to read and understand electronic hardware wiring diagrams
- Knowledge of Model-Based Development Methods & Tools: UML, Simulink
- Knowledge of Communication Protocols (Ethernet/AFDX, ARINC 429, RS 422, CANbus and USB 2.0)
- Knowledge of Integrated Modular Avionics (RTCA/DO-297, ARINC 653, ARINC 661, ARINC 664)
- Experience in various aircraft systems like Aircraft Displays, Guidance Systems, Flight Management Systems, Radio Communications or other related Avionics Systems

Miscellaneous Requirements

- Ability to communicate effectively in English and French (oral and written)
- Occasional travel required to customer sites (usually within North America)
- Possibility of assignment to customer site within the Montreal area
- Must be a Permanent Resident or Citizen of Canada

**Please submit your application by
E-mail: 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.