

# Guidance, navigation, and control specialist

**NGC Aerospace** is looking for a guidance, navigation, and control specialist (GNC). As part of your duties, you will be mainly responsible for the analysis, conception, and validation of GNC software, software/firmware/hardware integration, and the development of associated software.

## Your new day-to-day

- Develop and implement, using MATLAB/Simulink and C/C++, GNC and artificial vision software for space vehicles such as Earth observation satellites and space exploration probes;
- Define the required hardware, including sensors;
- Analyze and validate systems using digital simulations of operational environments, dynamic testing in a controlled environment, and field-testing;
- Model complex physical systems and develop associated simulators;
- Implement software in a real-time environment;
- Develop software tools to consolidate the organization's efficiency and improve the quality of its products;
- Optimize Simulink models to automatically generate efficient C code;
- Conduct research and development studies;
- Prepare technical documents using Word, Excel, PowerPoint and present results to customers and partners;
- Support the preparation of replies to calls for proposals and project management tasks.

# Your new benefits

- The opportunity to work for an international company that is well established and in excellent financial health;
- The chance to collaborate with a qualified team and sound human resource management, open to the sharing of new ideas and innovation;
- The joy of living in the Eastern Townships, a region that offers a balanced lifestyle (wide open spaces, affordable real estate, absence of traffic, etc.);
- A competitive salary that matches your skills and professional experience;
- Three weeks of vacation time upon hiring;
- A flexible work schedule with the possibility of teleworking;
- A group insurance plan with a 50% employer's contribution;
- An employer's contribution to your personal or group RRSP;
- The presence of a social committee that organizes various activities among colleagues and with family members.



#### **Required profile**

The essentials:

- Bachelor's degree in electrical, mechanical or aerospace engineering or equivalent (a master's degree is an asset);
- 3 to 5 years of relevant experience, including internships;
- Knowledge of the English language, written and spoken;
- Mastery of one or several of the following fields: control theory, navigation theory, image processing, dynamic modelling;
- Experience and skills in C/C++ programming;
- Mastery of the MATLAB/Simulink environment (Embedded Coder an asset);
- Ability to communicate with colleagues, customers, and partners;
- Organizational skills, autonomy, ability to work independently and in a team;
- Ability to manage several tasks stemming from different projects simultaneously;
- Ability to talk about drones, Kalman filters, and algorithms.

#### Assets:

- Experience in the design and operation of unmanned or remote-controlled systems;
- Experience in the design of space systems;
- Knowledge of other programming languages (Python, Java);
- Knowledge of and experience with best practices in terms of software quality assurance (DOT standards, RTCA DO-178B/C and MISRA compliance);
- Member of the Ordre des ingénieurs du Québec (or eligibility to become a member);
- Knowledge of French, spoken and written.

#### Contact

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