

Aerospace Software Systems Developer

NGC Aerospace is a Canadian high-tech company whose mission is the analysis, simulation, design and deployment of autonomous computer vision, guidance, navigation and control (GNC) systems for air and space vehicles. The algorithms, simulators and real-time control software designed by NGC aim to increase the autonomy, performance, reliability and safety of these intelligent vehicles, while reducing their operating costs.

On a day-to-day basis, NGC is an SME located in Sherbrooke, made up of 19 talented professionals who are passionate about technology, innovation and performance, and who rally around values such as collaboration, competence, creativity, well-being for all and social involvement. Join NGC, and let ingenuity, knowledge and collaboration guide your career!

To find out more about us: <https://career.ngcaerospace.com/>

NGC Aerospace is looking for an Aerospace Software Systems Developer, who will be primarily responsible for the analysis, design and validation of on-board guidance, navigation and control (GNC) software for unmanned aircraft (UAVs), integration with other hardware and software components, and associated software development. You are passionate about drones and innovation? This is the perfect role for you !

Your new day-to-day, as an Aerospace Software Systems Developer :

- Design and implement, using MATLAB/Simulink and C/C++, software and simulators for unmanned and autonomous aircraft (UAVs);
- Contribute to the integration and mechanical and electronic assembly of drone platforms as part of laboratory and flight test processes;
- Plan, define and operate test campaigns;
- Analyze and validate systems using numerical simulations of operational environments, dynamic tests in controlled environments and flight tests;
- Design and implement user interfaces on ground control stations and test automation routines;
- Model complex physical systems and develop associated simulators;
- Conduct research and development studies.

The NGC benefits :

- The opportunity to work for a well-established, world-class company;
- The opportunity to work with a talented team and a management team open to sharing creative ideas and innovation;
- The joy of living in the Eastern Townships, a region that offers a balanced lifestyle close to nature;

Ready to propel your career with us? Send your application now to career@ngcaerospace.com and discover how you can let ingenuity, knowledge and collaboration guide your career!

- Opportunities for professional development through various internal initiatives, conferences and technical training courses;
- Flexible working hours with the possibility of working from home;
- A group insurance plan with a 50% employer contribution;
- Employer contribution to your personal or group RRSP at 5% of your annual salary;
- Lively initiatives from our social club and sports committee to energize our work environment;
- Access to an on-site training room reserved for employees (with changing rooms and showers), and to a community garden in summer.

Key requirements for the role :

- Bachelor's degree in electrical, mechanical, computer, software or aerospace engineering, or equivalent;
- Knowledge of (and passion for!) the design, validation and operation of UAVs and airborne systems in general;
- Three years' experience in software design and programming, in an aerospace environment;
- Pilot's license for unmanned aircraft systems (UAVs);
- Knowledge of programming languages (C/C++, Python);
- Fluency in written and spoken French and English (as we operate in a bilingual environment, with many international customers and collaborators);
- Proficiency in one or more of the following areas :
 - drone operating procedures in accordance with Transport Canada regulations
 - automatic control theory
 - navigation
 - dynamic modeling
- Proficiency in the MATLAB/Simulink environment;
- Effective communication with colleagues, customers and partners;
- Organizational skills, autonomy, rigor and high technical competence;
- Ability to manage multiple tasks on different projects at the same time.

Assets:

- Experience with software development, validation and verification processes and tools;
- Master's degree in a related field relevant to the position;
- Knowledge and experience of software quality best practices (RTCA DO-178B/C and MISRA compliance) and MATLAB *Embedded Coder*;
- Member of the *Ordre des ingénieurs du Québec* (or eligible to become a member);
- Experience in algorithm design;
- Knowledge of Kalman filters;
- Experience with space systems.

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