

Job Posting: Principal Software Engineer

(MCSS.1959)

Mission Control located in Ottawa, Canada. We're looking for an enthusiastic and talented Principal Software Engineer to join our team.

About Us

We are a space exploration and robotics company focused on mission operations, onboard autonomy and artificial intelligence. We specialize in software for operating robotic assets deployed in harsh and remote environments like Mars or the Moon, as well as here on Earth. Our technology improves the safety, efficiency, productivity, and scientific return of robotic missions. We believe in sustainable exploration and inspiring the next generation to always keep exploring.

Please visit our website to learn more about our team and ongoing projects:

<https://missioncontrolspaceservices.com>.

We have a clear vision: to be a workplace where a diverse and thoughtful mix of talented people want to learn and do their best work. Diversity and inclusion are priorities for our company, and we believe in creating a team that reflects these foundational principles.

About the Job

You will play a key role with the leadership team and engineering team, working with stakeholders (internal and external) to architect new software products and solutions which solve complex problems both in space and on ground.

You could be a good fit for this role if you passionate about modernizing flight and ground software for robotic space missions and want to contribute to growing a small company from the ground up (literally and figuratively)! While you are experienced you will be exposed to a wide variety of tasks with abrupt changes to deadlines and scope, so you must be versatile self-starter who works well in teams, leading teams, and isn't afraid to learn something new. We use many tools at Mission Control including TypeScript, C, C++.

You will support and become a critical member of our team – a team of engineers, scientists, and space enthusiasts, who are passionate about being part of humanity's next bold steps in space exploration, with a view to inspiring the next generation and the public through our work and our contributions to exploring the solar system!

Tasks and Responsibilities

- You will be architecting and building advanced software products and solutions for customers in the space exploration and robotics market.
- You will be accountable for:

- Driving the development of our system software architectures, designs, and interfaces, including documentation.
- Performing trade studies, analyses, and modeling in support of requirements and system / product development.
- Providing technical leadership and review support for team members; actively participating in coding and reviews.
- Troubleshooting issues and investigations as required to support our team as we deliver products and implement new solutions.
- On-going improvements to our engineering practices and procedures.
- You will support Business and Product Development teams by engaging with customers in a technical capacity to define product requirements and new product opportunities
- You will work closely with the executive team to develop new product ideas to address emerging market opportunities
- You will work closely with the CTO on product and technology road mapping, and defining R&D plans
- You will be engaged as an expert in the space software and robotics communities by attending conference and workshops, participate in committees and working groups, publishing technical work, and speaking
- You will work with Project Management, supporting the successful delivery of project deliverables.
- You will contribute to our team culture with a positive and start-up oriented attitude – we have a collegial team with a wide range of hobbies and interests.

Skills and Experience

- Level of Education: B.Eng in Engineering, Computer Science or Equivalent
- Years of Experience: 10+ years
- Skills:
 - Applying software engineering knowledge to complex projects in the design, development, test, integration, verification, validation and operation of complex, specialized products and/or technologies.
 - Strong experience with requirements engineering; collaborating with stakeholders (both internal and external) to develop and decompose system level requirements, mapping them to verification activities and then managing requirements and verification throughout a project / products creation.
 - Experience designing, implementing and using existing and emerging space flight software frameworks, standards, and tools.
 - Familiarity with space robotics field, specifically as guidance, navigation and control, computer vision and machine learning applications are applied to planetary rovers, orbital robotic systems, and autonomous spacecraft
 - Own and promote the latest technologies for accelerated growth, while adhering to the strategic objectives, ensuring high productivity and low cost of ownership.
 - Ability to plan, prioritize workload and work efficiently and autonomously.
 - Proven capacity to meet deadlines in an environment with constantly shifting priorities; ready to showcase your organizational and time management skills.

- Ability to work on multiple tasks / projects concurrently.
- Proactive approach to problem-solving and strong decision-making skills.
- Skilled in finding new processes/tools to improve workflow.
- Professional level written and verbal communication and interpersonal skills.

Special Comments

Security: Successful candidates must be eligible to obtain a security clearance in Canada at the reliability status level (and potentially at the higher levels), and pass security assessment for the Controlled Goods Program (CGP).

Vaccine Policy: To maintain the health and safety of our employees, customers (including the Canadian Government) and guests of our facilities, Mission Control has implemented a mandatory vaccination policy for employees and visitors.

Location

- Mission Control is located in Ottawa, Ontario.
- Some travel may be required at certain times for this role, currently minimized during the COVID-19 Pandemic, but always following the Health and Safety Guidance of the Government of Canada.
- COVID-19 considerations:
 - This position is envisioned to be full time onsite (with flexibility) at our Ottawa location, with employees requiring a full-time address in Ontario. Considering the current, on-going pandemic, we continue follow government health and safety guidelines. We allow for onsite work when able, with a work from home policy in effect.

What's in it for you?

- Be on the forefront of space exploration and the emerging commercial space industry.
- Work to solve problems with a team of intelligent, fun people!
- Comprehensive Compensation and Benefits Package including paid time off, wellness plan (health, vision, dental) and unlimited unpaid time off.
- Employee Stock Option plan for equity sharing.
- Relocation assistance for eligible employees.
- Flexible working hours.
- Work in a respectful and inclusive workplace. It is extremely important to us that all employees feel safe and supported at work and feel able to bring their whole selves to work.
- Be part of a family-friendly company, where we understand the needs of working parents with children (because many of us are too!).
- Bi-weekly coffee chats for connecting with colleagues socially, as well as workplace social events.
- We're also pretty serious about coffee, which is supplied.

How to Apply

Please send your application materials to hr@missioncontrolspaceservices.com. Include Principal Software Engineer in the subject line. Application materials include:

- Cover letter and resume as a single PDF (required)



- Portfolio material, references, or other indications of exceptional past work (optional)
- As part of our commitment to an inclusive work environment, we accept and encourage anonymized resumes

We will accept applications until the position is filled. All qualified applicants will receive consideration for employment without regard to race, color, religion, gender, gender identity or expression, sexual orientation, national origin, genetics, disability, age, or veteran status.