

SBQuantum are using cutting edge science to enhance the way we use magnetic fields to 'Reveal the Invisible' for our clients. We are reinventing the way companies sense the world by innovating magnetics to provide solutions for problems to which this sensing modality was previously redundant. As a forerunner of Sherbrooke's nascent quantum hub, SBQ are prototyping a 'Magnetic Intelligence' platform, built around a novel diamond-based magnetometer. This platform will reveal hidden objects and enable improved navigation even in difficult environmental conditions. Magnetic fields are everywhere around us, let's make them central to how we sense the world.

Your mandate : Acquire data that will characterize the magnetic signature of a satellite that will measure the greatest and latest World Magnetic Model used for navigation in all modern devices.

Given a magnetometer floating in orbit around the Earth, how do you ensure that you are measuring the magnetic field of the Earth, and not the field of the satellite on which the magnetometer is mounted? By knowing precisely how the components of the satellite influence the magnetic readings, of course! If you like your data acquisition to come with a good helping of experimental setup development and some cool physics, you may very well be the person for the job. You will:

- Characterize the magnetic signature of a variety of objects as a function of multiple parameters including orientation and temperature;
- Develop data acquisition and analysis scripts that will extract the targeted magnetic properties;
- Improve the existing characterization setups to assess objects with greater accuracy, and add functionalities to perform more testing – with the mechanical and electrical work it implies.
- Keep an organize, traceable and transparent log of the findings

What you need to join our team!

SBQ are looking for candidates with a high degree of autonomy and rigor to develop a high-performance autonomous magnetic measurement solution that meets the needs of NASA, and of our customers at a larger scale. We are not afraid to fail so long as we learn from it - it's part of the adventure. We are looking for:

- A strong ability to work in a cross-functional team. You will work in a multidisciplinary team of passionate people in Sherbrooke, Montreal, Toronto - we are looking for examples of times you have excelled in a team environment be that at school or in an extra-curricular activity;
- Physics, mechanical eng. or related technical background, with experience in experimental setups;
- A strong drive in "building stuff" with emphasis on build "fast" while giving attention to detail;
- Agility to shape decisions to navigate ambiguity and adjust priorities;
- Responsiveness to criticism, ability to set clear and measurable goals;
- Our full-time schedule is flexible and includes working remotely when tasks allow;
- Bilingualism in French/English is an asset

You want to pioneer the deployment of a quantum technology in space? Contact us, our team wants to meet you!

Send your CV and cover letter to: info@sbquantum.com

As featured in: ● Wired ● The Economist ● A case study ● Graduation from the Creative Destruction Lab
● Institut quantique annual reports ● The Quantum Daily ● MagQuest Challenge

