



IMPORTANT: To apply, please send a short letter of explanation and your resume to info@qubitech.co

Available position: Quantum Nanofabrication Scientist (Full-time, permanent)

Start date: April 2024

Location: Waterloo, Ontario, Canada

About Qubic:

At Qubic, we are driven to revolutionize microwave sensing through the power of quantum technology. Our technology is multi-use and cross-industry, using the tools of microwave quantum optics to bring advantage to sensing and communication technologies outside of the laboratory. We are developing technology which can enhance the performance of radar systems used for navigation applications, improve the accuracy of satellite observation, and increase the privacy of microwave transmissions.

Founded in 2018, Qubic is a fast-growing Canadian start-up located in Waterloo, Ontario and Sherbrooke, Québec, two world-leading quantum technology hubs at the center of the Canadian quantum innovation sector. We graduated from the Creative Destruction Lab start-up incubator in 2022 and have secured support from private and public partners. Our long-term vision is to develop technology that shapes the future of quantum sensing and wireless using superconducting quantum electronics.

Qubic is a small, focussed startup environment. We are a close-knit team of innovators who value an entrepreneurial spirit and are passionate about the positive impact of future technology. Our culture is rooted in collaboration, intellectual curiosity, and a commitment to diversity, equity, and inclusion. We value the different perspectives, skills, and histories of technical work each member brings to our team. As we grow, we will support each team member in developing personally and professionally.

The Role:

We are hiring a Quantum Nanofabrication Scientist to join our team. This key role will be instrumental in advancing disruptive microwave quantum sensing hardware towards near-term commercialization.

The Quantum Nanofabrication Scientist will join a team of scientists and field experts. They will have primary responsibility for leading the nanofabrication of superconducting quantum devices participating in their design and ensuring that Qubic continues to operate at the frontier of the global scientific community of microwave sensing. Fabrication work will be conducted in the University of Waterloo's Quantum Nano Fabrication and Characterization Facility, an active cleanroom with extensive staff support and a vibrant user base of academic and industrial scientists. The Quantum Nanofabrication Scientist will also interface with Qubic's team members who focus on microwave engineering and quantum science, and will be expected to contribute to the measurement and characterization of fabricated devices.

This person will be instrumental in helping our company push the limits of the state-of-the-art in microwave sensing technology and enriching our nanofabrication expertise and knowledge in the process.



The candidate will have the opportunity to significantly contribute to the development of innovative hardware, methods and processes, backed by a strong support from the team's leadership and technical experts and access to top-of-the-line infrastructure, all in the name of developing next-generation RF sensing hardware.

Experience and qualifications:

Required experience:

- Ph.D. in Physics, Electrical Engineering, or a closely related field (completed or near completion) with considerable work in micro- and nano-fabrication of photonic or electronic devices or quantum circuits;
- OR: Master's degree in Physics, Electrical Engineering, or a closely related field with at least 2 years of industrial work directly in micro- and nano-fabrication of photonic or electronic devices;
- Experience in measurement and characterization of electrical devices;
- Experience with a common programming language such as Python, C, or Matlab;
- A high level of proficiency in written and spoken English.

Preferred experience:

- Experience carrying out microwave measurements and thinking with microwave devices;
- History of working with cryogenics;
- Experience with fabrication of superconducting quantum devices or superconducting thin films;
- Familiarity with subtleties and uses of nonlinear superconducting materials;
- A strong research track record as demonstrated by peer-reviewed publications and/or conference presentations.

Ideal profile:

- Passion about quantum technology and developing new scientific interventions based in quantum optics;
- Strong critical thinking skills and willingness/ability to break down complex problems;
- Growth-oriented mindset and excitement to learn new skills;
- Desire and ability to work both in the cleanroom to build devices and in the lab for measurements;
- Ability to manage experiments, scientific challenges and innovations, as well as resources and time;
- Willingness and ability to take on a leadership role;
- A desire to work well with others towards a common goal;
- Outstanding communication skills and the ability to teach those around you.

Qubic's commitment to DEI:

At Qubic, we value and are committed to diversity, equity, and inclusion. We believe that having a diverse team and a work environment that genuinely supports this team helps us build better, more innovative products and services that meet the needs of all people. We need people from all backgrounds to help build the wireless technology of the future.



To promote DEI within our company, we are taking several actions:

- We are actively seeking and recruiting talent from underrepresented groups in our industry.
- We have implemented blind resume screening to reduce unconscious bias during the hiring process.
- We are committed to paying fair and equitable salaries and providing equal opportunities for career growth and advancement.
- We will provide ongoing training and resources to all employees on topics related to diversity, equity, and inclusion.
- We have created and are committed to maintaining a culture of empathy, care, and support where all team members feel valued, respected, and included.
- We are committed to flexible work schedules and practices.
- We are reviewing and evaluating our DEI practices to ensure that we are meeting our goals and making progress towards creating a truly diverse and inclusive workplace.

We believe that equitable and just treatment of all people is critical to our company's success, and we are committed to creating an environment where all team members can thrive and contribute to our mission.



www.Qubictech.co

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