Quantum Computing Graduate Student Curriculum Planner

Job Description

About the Organization

UBC Geering Up Engineering Outreach is a non-profit, student-run organization dedicated to promoting science, engineering and technology (STEM) to the children and youth of British Columbia through fun, innovative and hands-on experiments and projects. Geering Up also strives to reach all children and youth, regardless of gender, ethnicity, culture, or socio-economic status. Over the past 20 years, we have reached over 150,000 youth.

More information about Geering Up is available at www.geeringup.ca

Job Summary

The Quantum Computing Curriculum Planner supports the development and delivery of Geering Up’s Quantum Computing Outreach programs across British Columbia. They will be working under the Quantum Computing Outreach Coordinator and the Curriculum Team Lead in creating engaging and accessible Quantum Computing curriculum. The Curriculum Planner will be asked to work with a curriculum team consisting of industry volunteers and graduate students to plan and may be asked to assist in delivery of workshops, after-school and Saturday clubs, one-day, and multi-day teacher professional development programs, and activities to be run in Geering Up’s summer camps. The Curriculum Planner should have some experience in Quantum Computing or related fields, but is not expected to be an expert in the field. An interest in Physics, Quantum Mechanics, and software/hardware development is an asset.

Under the guidance of the Coordinator and Curriculum Lead, the Quantum Computing Curriculum Planner is required to:

1. Assist in the development and delivery of quantum computing kits for workshops, camps, and professional development programs for teachers
a. Become an expert in the BC curriculum
b. Work with the Curriculum Lead and Curriculum Team to plan and design workshops for elementary and high school classrooms, and teacher programming
   i. Review all workshop procedures for compliance with Geering Up’s risk management procedures, to create safe, and fun learning experiences
2. Work with industry professionals and graduate students in developing age-appropriate curriculum for a variety of programming-types (i.e. clubs, workshops, camps)
3. Design InSTEM workshops relating to Quantum Computing
4. Present their curriculum to instructors and assist Coordinators with training of instructors
5. Complete all evaluations and reports in a timely manner
6. Perform other duties, as requested by the Coordinators

Duties


The Quantum Computing Curriculum Planner will plan, design, and purchase materials for quantum computing. This will include reviewing and polishing existing content, developing new content, and ensuring all content is engaging, exciting, and educational. In all tasks, the Quantum Computing Curriculum Planner will create safe and fun learning experiences in science, engineering, and technology.

The Quantum Computing Curriculum Planner will complete all evaluations and reports assigned in a timely manner as well as perform other relevant duties, as requested by the Coordinators and the Program Manager. The curriculum planner tasks are of medium complexity, with the expectation that the curriculum planner will be able to create engaging and interesting activities for students.

Supervision

The Quantum Computing Curriculum Planner will work directly under the supervision of the Coordinators, and the Curriculum Lead. The Coordinators will be available for guidance at prearranged office hours, and throughout the week via phone and email.

There is room for growth and for the Quantum Computing Curriculum Planner to create their own activities and systems - we encourage suggestions for improvement of the program. The Coordinators will also provide additional support in terms of reimbursements, payroll, budgeting, instructor training, and publicity resources.

The Quantum Computing Curriculum Planner must be well-versed in Geering Up emergency procedures, including but not limited to: fire drills, missing participants, disclosures of neglect and abuse, earthquakes, bomb threats, and various first aid incidents. They may ask to be certified in Standard First Aid + CPR C; Geering Up will cover the cost of training if they are not already certified.

Qualifications

1. Experience working in a teaching environment
a. Examples of this could include community centres, day camps, overnight camps, or daycares

b. Experience teaching science and engineering to youth is an asset, although it is not required. Volunteer experience with Geering Up, or another Actua camp is an asset.

2. A strong background in science, engineering, technology, or education
   a. A background in Physics or Quantum Computing or related fields is necessary
   b. We accept students of any year standing - undergraduate, or graduate. A strong background in computer science, physics, and/or engineering is an asset.

3. Familiarity with the BC School Curriculum and BC Education System is an asset

4. Willingness to gain expertise on a variety of STEM topics

5. Proven leadership skills and exceptional teamwork abilities

6. Excellent communication and interpersonal skills

7. Planning, organizational, multitasking, and self-directed work skills

8. Special consideration given to those with formal training in education, those who have worked in a summer camp or classroom environment in the past, and those with current Standard First Aid certification.

9. All Geering Up Staff must have a Criminal Record Check on file before they may work with children.

A candidate who is a great fit for this position will be flexible, collaborative, and highly organized. Strong communication and interpersonal skills are extremely important. Project management experience and experience managing and operating budgets is an asset. The Quantum Computing Curriculum Planner should have proven leadership skills, be capable of multitasking, and be comfortable in a self-directed work environment.

**Term of Appointment**

This position is part-time from **September 6, 2022 to April 30, 2023**.

**Remuneration**

10 hours per week, at **$32.02/hour**.

Graduate students, especially those specializing in the field of Quantum Computing or related fields, are encouraged to apply.

**How to Apply**

Please complete and submit the following items to Geering Up:

Application forms can be found on our website, [www.geeringup.apsc.ubc.ca/staff](http://www.geeringup.apsc.ubc.ca/staff) You must apply via this form. The application form will request you to attach your cover letter and resume on the last page. Applications sent via email or via careers online will not be accepted. The deadline for applications is **July 24th, 2022 @ 11:59 PM PST**.