

Vacancy: - Student Research Assistant (part time), Concordia University

Start date: As soon as possible

Salary: Commensurate with Concordia's pay scale for student research assistants

Duration: starting as soon as possible until December 2021, weekly hours can be flexible based on availability

Location: Montreal, Canada (currently remote)

Deadline for application: 1 October 2021, 5pm EDT

Position Overview

We are seeking a PhD student to contribute to a new project for the Sustainability in the Digital Age (SDA) initiative, and the Future Earth Canada Hub. The project focuses on conducting a **landscape analysis of carbon and water modelling** to inform the scale-up of nature-based climate solutions in Canada. The mandate of this project is to address key questions in this space, refined in collaboration with an expert advisory group, through research and a rapid consultation process. A final report in the format of a roadmap will be produced by the end of 2021. This roadmap can be used to prioritize research and investment towards the most promising avenues for scale-up of machine learning applications in Canada and present a more inclusive and representative view of nature-based climate solutions.

This position reports to the project's Principal Investigator Dr. Eliane Ubalijoro, Research Professor in the Department of Geography, Planning and Environment at Concordia University and Santiago Ramirez Said, the project's Research Associate. The general mandate is for the research assistant to support a variety of key tasks required to kick-start this new project. These include support in developing interdisciplinary communications materials (e.g., for communications with the Advisory Group strategically guiding the project and with other external partners), co-developing a framework exploring linkages between carbon and water modelling, as well as conducting a literature review and research around the following topics (detailed questions are amenable to refinement and further input from project funders and partners):

Roles and Responsibilities

- Compile information (from a review of peer reviewed and grey literature as well as expert consultations) on data, monitoring, and other gaps related to scaling nature-based solutions for climate that optimize ecosystem services and fostering opportunities for new, innovative systems;
- Conduct a review of opportunities and challenges of Machine Learning in carbon and water monitoring in Canada;
- Draft summary texts related to the two points above as well as on other topics to be determined by the Principal Investigator and Research Associate on an ad hoc basis, and;
- Support the compilation of materials in preparation for online meetings, workshops, and other events.

Qualifications & Desired Qualities

- PhD student in a relevant discipline (e.g. climate change, sustainability science, natural resource management, biology, and/or ecology)
- Experience in conducting literature reviews and case study analyses across different knowledge systems
- Interest in understanding and communicating major issues at the nexus of digital innovation and environmental sustainability
- Strong communication, organizational, and interpersonal skills with ability to multitask
- Excellent writing and synthesis skills in English, bilingual French and English preferred
- Ability to be autonomous in a fast-paced work environment

Application procedure

As the position is based in Montreal, applicants must be legally authorized to work in Quebec. The position will be part of Concordia's University's [CARE union](#) (Concordia Association of Research Employees).

Applicants to this position are requested to submit a curriculum vitae and a cover letter describing their interest in the position and how their skills and experience would help them meet the requirements of the role. Please also include the name and contact details of two referees. Applications – in one combined PDF file in English – should be sent via email with "Research Assistant, Landscape Analysis" in the subject line to eliane.ubalijoro@concordia.ca, copying montrealhub@futureearth.org. The closing date for applications is **October 1, 5pm EDT**.

Institutional background

About the Department of Geography, Planning and Environment at Concordia University

The Department of Geography, Planning and Environment at Concordia University is at the forefront of interdisciplinary research and teaching that addresses some of the most pressing social and ecological problems of our time. Located in the heart of Montreal, we are home to a diverse and dynamic community of faculty, staff, undergraduate students, graduate students and alumni. Bridging the natural and social sciences, we provide a distinctive and incisive perspective on the world through our research, teaching and graduate training in three core areas: geography, urban studies and urban planning, and environmental science.

About the Future Earth Canada Hub

[Future Earth](#) is an international platform for research, innovation, and collaboration working to accelerate transformations to global sustainability. With offices all over the world, we harness the experience and reach of thousands of scientists and innovators from across the globe.

The Future Earth [Canada Hub](#) based in Montreal mobilizes the best sustainability science to advance sustainability transformations in Canada and around the world. We're a network of Canadian researchers and innovators, collaborating across disciplines and sectors, to connect local projects to Future Earth's global sustainability initiatives.

About Sustainability in the Digital Age

[Sustainability in the Digital Age](#) (SDA) is a partner organization to Future Earth. As an international initiative, SDA builds networks, conducts research, and sparks innovation in technology, policy, and social change, at the intersection of the natural, social, and digital worlds. SDA works across three areas: (1) facilitate research and innovation for leveraging digital capabilities to transform social systems; (2) advance innovative policies, standards, and best practices for building sustainability in the digital age; and (3) train the next generation of leaders to navigate the intersection of the two most powerful forces shaping our world today – digital transformations and global environmental change.