

Two postdoc positions in Canada (open to start immediately)

We are looking for highly motivated individuals to fill **two postdoc positions** (Université de Montréal [UdeM]). Working as part of a larger team including university, government scientists and Indigenous partners, the three individuals will work on different aspects of a recently funded project aiming to shed light on how tall shrub encroachment affects tundra vegetation composition, structure and diversity, and associated surface-atmosphere interactions across scales. Funded through the Institute for Data Valorisation (IVADO) and ArcticNet, the two-year positions are primarily based in Montréal, Québec with regular research visits to Wilfrid Laurier University (WLU) in Waterloo, ON and Trail Valley Creek (TVC) near Inuvik, NT:

<https://www.wlu.ca/academics/research/partnerships/gnwt/research-sites/trail-valley-creek.html>

Montréal is home to several research-intensive universities and research clusters, including a vibrant artificial intelligence community centered on Mila - Quebec AI Institute. Collectively, these world-renowned institutions provide ample career development and collaboration opportunities. A competitive salary for the postdoc positions is based on the candidate's experience.

Postdoc_1: Land surface-atmosphere interactions. Based at UdeM, postdoc_1 will process, analyze and upscale flux measurements collected at the TVC Research Station. The "nested". Arctic flux set-up includes three eddy covariance towers and an automated chamber system: a 20-m landscape tower > two 5-m ecosystem towers > 18 automated chambers (see some footage here: <https://www.dropbox.com/sh/q7pmdw8s83gh0lq/AADUm4MYyP2lhVFYFL5M7CEa?dl=0>)

Postdoc_2: High-resolution image classification. Based at UdeM and WLU, postdoc_2 will collect ultra-high resolution unmanned-aerial vehicle imagery over the terrestrial-aquatic Arctic landscape to identify and measure individual plants and map plant communities and land cover using deep learning methods.

Ideal applicants for the two postdoc positions have

- 1) a strong quantitative background obtained through a PhD in ecology, environmental science, computer science, Earth system science, etc.,
- 2) in at least some aspects of the project (e.g., micrometeorology, deep learning, image classification),
- 3) the ability to work independently and effectively as part of a team setting consisting of university, government, and Indigenous researchers, and
- 4) excellent written and oral communication skills in English, and
- 5) a track record of timely completion of projects and publications.

Please email questions regarding the positions and application packages consisting of cover letter, curriculum vitae, an English writing sample (ideally a publication), copies of academic credentials, and names and contact information of at least two referees to:

oliver.sonntag *at* umontreal.ca (postdoc_1)

jbaltzer *at* wlu.ca (postdoc_2)

etienne.laliberte *at* umontreal.ca (postdoc_2)

The review of applications will commence immediately until the positions are filled.