

CAREERS & RESEARCH



Job Title:	Data Analytics PhD Student (Winter 2023)
Job ID:	#2022-06
Project Description	<p>Metal Earth / MERC & the Bharti School of Engineering and Computer Science at Laurentian University require a PhD student to assist in integrating various geoscience spatial data types creating a map(s) showing areas favourable for mineral exploration. This will be undertaken by employing a variety of machine learning algorithms (e.g. random forest, SVM, Neural nets) to analyse, integrate and present the data. The results will be published and be available to Canada's exploration industry for ground evaluation and follow-up.</p> <p>This position requires a variety of skills including knowledge of integration and analysis of spatial geoscience data and advanced data analysis skills including machine learning algorithms. The successful candidate will work closely with geologists from the Metal Earth project to afford a productive collaboration between geology and computing science faculty at Laurentian University.</p>
Metal Earth/ MERC	<p>With CAD \$104 million in funding provided by the Canada First Research Excellence Fund (CFREF), the Northern Ontario Heritage Fund and through strategic partnerships with universities, government geological surveys, and international research centres, Laurentian University has initiated Metal Earth - the largest ever mineral exploration research project undertaken in Canada. Metal Earth seeks to identify and understand the processes responsible for Earth's differential metal endowment during the Precambrian. This research initiative aims to transform our understanding of Earth's early evolution and how we explore for metals.</p> <p>Metal Earth is led by the Mineral Exploration Research Centre (MERC) at Laurentian University in Sudbury, Canada. MERC was established in 1997 and comprises an internationally recognized group of researchers from academia, industry, and government.</p> <p>https://merc.laurentian.ca/research/metal-earth</p>
Bharti School of Engineering & Computer Science	<p>The Bharti School of Engineering and Computer Science undertakes pure and applied research in the mining, mechanical, chemical engineering and computer science disciplines. Faculty members in computer science are involved in research related to artificial intelligence using machine learning techniques in various applications. This opportunity provides graduate students with an excellent opportunity to collaborate on the Metal Earth project, to fuse techniques in artificial intelligence and mineral exploration to produce novel analytics and data products of relevance to geoscience.</p>

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Funding	Metal Earth PhD research projects are fully-funded for four years and include complete field and analytical support.
Laurentian University	<p>Laurentian University is an inclusive and welcoming community that encourages applications from members of equity-seeking communities including women, racialized and Indigenous persons, persons with disabilities, and persons of all sexual orientations and gender identities/expressions.</p> <p>Laurentian University is committed to providing an inclusive and barrier-free experience to applicants with accessibility needs. Requests for accommodation can be made at any stage during the recruitment process.</p> <p>Effective May 1, 2022 the Policy and Program on COVID-19 Vaccination are placed in abeyance. This means the Policy and Program on COVID-19 Vaccination are paused at this time; however, they are not canceled and could be reinstated at a future date if public health conditions warrant it, or through guidance from federal, provincial or local public health authorities. The evolution of the virus and the course of the disease activity are difficult to predict and it may be necessary to reinstate the Policy in full or in part, on short notice. When the Policy and Program on COVID-19 Vaccination are paused, persons entering Laurentian's campus will no longer be required to provide proof of vaccination in order to attend campus.</p>
To Apply	To apply, please forward your application and cover letter to merc@laurentian.ca and reference the Job Identification Number (2022-06) . The application should include: a CV, academic transcripts, contact details and the names of three referees. Review of applications will begin on October 14, 2022 and continue until a candidate is found. The position start date is January 7, 2023.