

Remote Sensing Analyst Position

Job type: Full-time, non-permanent. This position is office-based.

Term period: December 1, 2024 to March 31, 2025, with the possibility of extension.

Location: Saskatoon or Regina, Saskatchewan

The Prairie Landscape Inventory project is led by the Saskatchewan Ministry of Environment in collaboration with Dr. Xulin Guo at the University of Saskatchewan. The goal of the project is to develop reliable machine learning models to map the current distribution of native and tame grassland landcover for the prairie ecoregion in Saskatchewan to support the development of policy and tools for addressing grassland conservation.

The Remote Sensing Analyst position is the technical lead on the project. The position has the responsibility to:

- Continue developing and refining spectral libraries from existing field data and imagery for native and tame grassland landcovers.
- Build on existing deep learning modelling work to explore and develop approaches to update native and tame grassland landcover mapping using multi-year spectral library data, climate data and newly acquired satellite imagery.
- Reliably manage large and complex data sets and maintain well-documented codes for reproducibility.
- Effectively document and communicate project progress and results through written reports and presentations for technical and non-technical audiences.
- Collaborate with the project team, including staff from the Ministry of Environment and the research team at the University of Saskatchewan.

The skills needed for this position include:

- A strong understanding and experience working with Geographic Information Systems (GIS), R programming language, and Google Earth Engine Javascript/Python to conduct landcover classification using machine learning algorithms.
- The ability to program deep learning models and cloud computing for scalable landcover classification would be considered an asset.
- Experience working with and manipulating historical Sentinel, Landsat and other satellite data products.
- Experience working with image processing software such as PCI Geomatica, ENVI, and/or eCognition would be considered an asset.
- Ability to perform quality assurance/quality control on data.
- Familiarity with grassland/agricultural ecosystems.
- Ability to communicate complex technical topics to non-technical staff and clients.

Qualifications:

- Master's Degree in Geographic Information Systems, Data Science, Geomatics, Engineering, or other technical disciplines.
- 3+ years of experience with GIS, remote sensing.

Requirements: Candidates must be eligible to work full-time in Canada

Salary Range: \$5,500 to \$6,250 monthly, depending on experience and qualifications

To Apply: send a Cover Letter and CV to one of these contacts:

Xulin Guo: xulin.guo@usask.ca; Amy Nixon: amy.nixon@gov.sk.ca

Application Deadline: November 12, 2024.