UBC Department of Forest Resources Management

Job Opening ID: 25987
Job Title: Geospatial Systems Analyst
Desired Start Date: July 1, 2017
Application Deadline: April 21, 2017

Please apply through the [Careers at UBC website](#).

JOB SUMMARY

The UBC Faculty of Forestry is a world leader in forestry research and education, and provides a focus for forestry in British Columbia and throughout Canada. Forestry is an inherent component of Canadian life both economically and socially with forests making a vital contribution to moderating climate, filtering air and water, regenerating soils, and preventing erosion. Canada is, therefore, required to respond to both national and international protocols related to climate change and the sustainability of its forests. This requires forest resource information to be regularly measured and monitored to provide timely and accurate information. The Department of Forest Resources Management (FRM) within the Faculty aims to excel in education and research for the conservation and sustainable management of forests and woodlands. The Department provides outstanding education that is interdisciplinary, international, and experiential, including an accredited forestry degree; and fosters an interdisciplinary, innovative research environment that attracts world class graduate students and scholars.

The Geospatial Systems Analyst provides teaching and research support to the Faculty on the application and development of geospatial technologies for natural resources management. Liaises with the wider UBC community on the application and development of geospatial technologies.

ORGANIZATIONAL STATUS

Reports to Department Head and the Chair of the Faculty of Forestry Geospatial Committee. Provides consultation and advice to faculty, staff and students in the area of geospatial techniques and technologies. Works with technical support staff as directed on Faculty tasks. Acts as secretary on Faculty Geospatial Committee and participate on committees related to GIS and remote sensing at UBC, and in the wide community where appropriate. Contacts and negotiates with vendors or service providers. Supervises and delegates assignments to Work Study students and temporary student assistants, as needed.

This position resides in an office in the Forest Sciences Building.

WORK PERFORMED

-Provides recommendations on development and delivery of geospatial curriculum.
-Provides consultation and advice to faculty, staff and students in the area of geospatial techniques and technologies.
-Develop and maintain course materials related to geospatial information, including GIS,

remote sensing and GPS, for undergraduate and graduate programs.
-Develop analytical scripts and programs (utilizing one, or a combination of, Python, R, Java, Julia, Hadoop, C, etc.) to integrate geospatial data with other datasets (e.g., link ground data with GIS and remote sensing datasets for modelling).
-Serve as Secretary on the Faculty Geospatial committee and maintain the Faculty GIS website.
-Coordinate GIS and remote sensing site licenses as appropriate for the Faculty including negotiations with vendors and advising the Geospatial Committee on budgetary requirements
-Acts as a Departmental resource for undergraduate and graduate students, staff and faculty for GIS and remote sensing applications, including assisting with software development and acquisition/delivery of relevant data
-Obtain relevant geospatial data from other sources, for example BC and Canadian Ministries, and the UBC research forests and develop procedures to store and access this data throughout the faculty.
-Actively promote and coordinate GIS research and employment opportunities within the faculty and participate on committees related to GIS at UBC, and in the wider BC community as appropriate.
-Coordinate with other UBC units in areas of geospatial activities including coordination with the UBC research forests, forestry departments and the University where appropriate.
-Organizes faculty and staff GIS continuing studies activities including access to web based courses, "brown bag" work-shops, and colloquia.
-Provides general IT support directed by the Faculty Director of IT.
-Performs other duties as directed.

CONSEQUENCE OF ERROR

Due to the rapidly changing nature of this field, it is critical that this position keep abreast of current technologies. Failure to provide the required state-of-the-art technical support would negatively impact student education, and the Faculty's reputation. Errors or deficiencies in data quality would jeopardize research results and negatively impact research budgets.

SUPERVISION RECEIVED

Reports to the Department Head and Chair of Geospatial Committee. Receives direction from the Chair of the Geospatial Committee.

SUPERVISION GIVEN

Oversees work of work study students and student assistants.

QUALIFICATIONS

Undergraduate degree in a relevant discipline. Advanced technical training in geographic information technologies, Geographic Information Systems and Remote Sensing required. A commitment to ongoing learning to keep abreast of changing technology is a job requirement. Minimum of three years' experience or the equivalent combination of education and experience. Current, extensive practical and theoretical knowledge gained through a minimum of three years' experience required. Demonstrated experience with natural resource data sets.

-Strong programming skills in one or more of, but not limited to, the following: Python, VB, VB.Net, Java, C, C#, C++, or other language.

-Mastery of basic concepts behind data management in a relational or object-relational database such as   Access, ORACLE, SQLServer, or similar.
-Thorough knowledge of current ESRI GIS software products, and various ESRI modules and extensions   appropriate for teaching-support purposes; familiarity with other key programs, including but not limited to QGIS and AutoCad.
-Thorough knowledge of remote sensing applications.
-Knowledge of international GIS data standards, quality control and application of common GIS methods to natural resource management.
-Familiarity with multi-user GIS project management, team-building and team management.
-Experience with web-based data-serving applications (javascript, perl, html, asp, php) is desirable.
-Ability to communicate effectively both orally and in writing with a wide range of clients, including the ability to present complex concepts in a clear, organized fashion. Initiative, judgment and tact, with the ability to act as a self-starter able to function with minimal supervision while maintaining regular and clear communication to the satisfaction of supervisor(s) and clients.

UBC hires on the basis of merit and is strongly committed to equity and diversity within its community. We especially welcome applications from visible minority group members, women, Aboriginal persons, persons with disabilities, persons of minority sexual orientations and gender identities, and others with the skills and knowledge to productively engage with diverse communities. All qualified candidates are encouraged to apply; however Canadians and permanent residents will be given priority.