



## WEB/DATABASE DEVELOPER

The Canadian Cryospheric Information Network (<https://ccin.ca>) at the University of Waterloo is seeking a full-time **Web/Database Developer**. CCIN, Canada's primary source for data and information on snow, ice, and cold regions for over two decades, manages the Polar Data Catalogue (<https://polardata.ca>), a searchable archive of data and information generated by Arctic and Antarctic researchers from ArcticNet, Canada's Northern Contaminants Program, the Canadian High Arctic Research Station of Polar Knowledge Canada, the Nunavut General Monitoring Plan, and others. Growing maturity of the PDC platform has increased demand for our data management services, thus we seek a proactive and creative individual with experience in **full-stack web development and administration** to contribute to our program. The ideal candidate will thrive on variety in his/her work, will take the initiative to identify and respond to the evolving needs of the organization, and will integrate best security practices into all aspects of their work.

### DUTIES

- Work with the CCIN team to understand the organization and the polar data community
- Develop, maintain, and upgrade Java/Spring-based web applications to support research data management
- Audit and optimize web configurations to enhance performance, functionality, and security
- Manage public web services and data sharing infrastructure
- Design and develop in PostgreSQL, including data modeling and query optimization, to support the web applications
- Administer master-slave database infrastructure, including configuration, backup, and monitoring database-related services
- Write and maintain technical documentation
- Attend and contribute to regular CCIN team meetings

### QUALIFICATIONS

- Minimum Bachelor's degree in Computer/Information Science, Geography/GIS, Natural or Mathematical Sciences, or equivalent
- Minimum 2 years experience in a Web Development role
- Proactive, innovative, and eager approach to problem solving and a desire to continue learning new technologies and practices for improving the organization and our products
- Expertise in the following is required:
  - Java, Spring Framework and related web-based software stack, including Hibernate, Java JPA, JSP, etc.
  - Front-end JavaScript technologies, such as AngularJS and jQuery
  - Tomcat and Apache
  - PostgreSQL database and PostGIS, SQL, PL/SQL, and Python
  - Open-source GIS technologies such as OpenLayers and other geospatial tools
  - PHP for use in Drupal or other content management system
  - Linux/Unix operating systems and fluency in working at the command line
  - Object-relational databases

- The ideal candidate will have expertise in the following:
  - GeoServer and GeoNetwork
  - Metadata and data sharing tools such as WMS and other web services, OAI-PMH, THREDDS, OPeNDAP, etc.
  - Geospatial data processing
  - XML
- Additional desired skills and expertise include
  - Knowledge of environmental data and ability to manage it in the spatial domain
  - Ability to adapt quickly to new situations and analyze and solve problems promptly
  - Ability to work independently, successfully communicate, organize and present materials clearly, and manage time efficiently
  - Strong attention to detail

This is a full-time, grant-funded, contract position with benefits located in Waterloo, Ontario, Canada. Salary is competitive. The position is available immediately and continues through March 2018, with continuation possible depending on performance and availability of funds. **Interested applicants should provide a cover letter, full resume, and names and contact information for 2 references.** Please direct all application materials or inquiries to: Julie Friddell, Director, CCIN/PDC, [julie.friddell@uwaterloo.ca](mailto:julie.friddell@uwaterloo.ca), 519-888-4567 x32689.

We invite applications from all interested applicants; however, citizens and Permanent Residents of Canada will be given priority. Applications will be reviewed as they are received, and interviews will be scheduled individually. Thank you for your interest!