



## IDENTIFICATION

Department	Position Title	
Aurora College	Web Application and Database Developer	
Position Number	Community	Division/Region
91-10868	Inuvik	Aurora Research Institute

## **PURPOSE OF THE POSITION**

The incumbent is responsible for the planning, development, deployment and management of web-based application projects and information management systems within the Aurora Research Institute (ARI) and on external projects, as required. This position manages remote web-based servers, websites and on-line databases, and ensures data security for ARIs web-based projects. The incumbent also provides technical support and timely solutions to moderately complex software and information technology needs to ARI headquarters and its three research centres -- South Slave Research Centre (SSRC), Western Arctic Research Centre (WARC), and North Slave Research Centre (NSRC).

## **SCOPE**

The position is located in Inuvik and reports to the Manager, Technology and Manufacturing. The incumbent is the technical lead for ARI web and information management applications. This includes design, development, and management of web and database projects, including on-line databases, social media feeds, and web server maintenance. The incumbent provides advice and makes recommendations on improvements in all ARI, SSRC, WARC, and NSRC data management matters, as well as new technology and equipment requirements. The position is responsible for problem solving, troubleshooting, and ensuring the efficient operations of ARI technology deployments. The incumbent performs daily programming, design, and testing tasks. The incumbent is expected to develop work plans in consultation with the Manager, Technology Development and to work independently with regular reports and briefings to the Manager. This position also works in collaboration with Aurora College Information Systems & Technology division to ensure consistent protocols, approaches and standards throughout the organization. The incumbent may provide guidance and supervision to temporary project staff on an as needed basis.

## **RESPONSIBILITIES**

- 1. Providing daily maintenance and management of ARIs servers, web applications, social media feeds, and databases.**
  - Maintaining and analyzing security, system and application event logs to monitor and evaluate overall system/web application health;
  - Performing back-ups of servers, web applications and databases in a timely and consistent manner;
  - Configuring, analyzing and implementing solutions to deal with system/software issues, bottlenecks or inefficiencies;
  - Researching current/future web server software needs and making recommendations for purchase of new, or renewal of existing, software/services;
  - Implementing and monitoring security procedures to protect ARI data;
  - Providing priority support for ARIs on-line licensing system, including external dependencies for faxing and e-mail systems;
  - Creating and updating documentation including diagrams, source code, and database structure;
  - Maintenance, upgrading and updating of website Content Management Systems (CMS);
  - Monitoring day-to-day operations of websites, including user tracking;
  - Working with Managers to ensure that content of the ARI web applications, social media feeds, and databases are up-to-date; and
  - Providing technical support and training on the usage of website Content Management System and other web applications/services to ARI staff.
- 2. Supporting on-going development of ARI web applications, social media feeds, and information management systems.**
  - Leading in the development of ARIs information management plan and on-line information dissemination plan;
  - Reviewing current applications to ensure they are meeting user requirements;
  - Website development in Drupal, C#.NET, and other website building technologies;
  - Carrying out user needs assessments, as required;
  - Setting objectives and milestones for application development to ensure the most effective use of resources;
  - Researching and choosing the most effective software and strategies to meet the project requirements;
  - Programming, including graphic elements for end-user access, to achieve project requirements;
  - Testing of applications throughout the development cycle to ensure user needs are met and project is delivered on time;
  - Working harmoniously with various clients, both internal and external to ARI, involved in the development and implementation of projects;
  - Documenting technical specifications of applications created;
  - Creating and supporting ARI developed software including SharePoint applications, C# NET applications, and other in-house developed software;
  - Maintaining knowledge of current developments in web and information management technologies; and

- Researching, testing and learning new technology developments and products that would enhance ARIs information management and dissemination.

**3. Providing technical support for the ARI and its research centres.**

- Providing technical knowledge and support to the Vice President, Research and the Managers of SSRC, WARC, and NSRC;
- Providing software support and responding to technical questions and problems in a timely fashion;
- Maintaining and analyzing logs to correct deficiencies in equipment and software;
- Monitoring technology to determine needs for new equipment, software and systems and upgrading, as required;
- Determining whether modifications meet the required objectives;
- Ensuring funds allocated for systems development, computer services and computer hardware/software achieve value for money;
- Assisting WARC staff with major computer related initiatives such as geographic information systems software and data, complex printing jobs, special equipment usage, etc.;
- Supervising projects at WARC with regular debriefings to ensure that project objectives are being met; and
- Organizing in-house training or demonstrations on new technology or software.

## **WORKING CONDITIONS**

### **Physical Demands**

No unusual demands.

### **Environmental Conditions**

No unusual demands.

### **Sensory Demands**

No unusual demands.

### **Mental Demands**

No unusual demands.

## **KNOWLEDGE, SKILLS AND ABILITIES**

- Proven knowledge of Microsoft Visual Studio , Microsoft Windows Server, Microsoft SQL Server, Microsoft Office, and graphics editing software such as Adobe Photoshop/Illustrator;
- Fluency in programming in the following languages: C#, HTML, CSS, ASP.NET, SQL, JavaScript;
- Experience with major .NET frameworks and design patterns: MVC, Entity Framework, Repository, Unit Testing;
- Experience or knowledge of the Agile development methodology and related processes;
- Experience with PHP and Drupal would be an asset;

- Experience with graphic design would be an asset;
- Ability to conceptualize, plan and implement projects;
- Excellent project management, time management and organizational skills;
- Proven experience setting up and managing computer hardware and software applications;
- Strong research, analytical and solution-providing skills;
- Excellent communication skills, both oral and written, in order to generate confidence in development efforts offered for clients as well as communicating complicated concepts to clients not familiar with web-based technology;
- Ability to work effectively with minimal direction/supervision; and
- Ability to work effectively in a cross-cultural environment.

**Typically, the above qualifications would be attained by:**

- Degree in Computer Science, Engineering or related field ; and
- 3 or more years of experience in developing C# .NET applications, server administration and databases.

**ADDITIONAL REQUIREMENTS**

**Position Security** (check one)

No criminal records check required  
 Position of Trust – criminal records check required  
 Highly sensitive position – requires verification of identity and a criminal records check

**French language** (check one if applicable)

French required (must identify required level below)  
 Level required for this Designated Position is:  
 ORAL EXPRESSION AND COMPREHENSION  
 Basic (B)  Intermediate (I)  Advanced (A)   
 READING COMPREHENSION:  
 Basic (B)  Intermediate (I)  Advanced (A)   
 WRITING SKILLS:  
 Basic (B)  Intermediate (I)  Advanced (A)   
 French preferred

**Indigenous language:** Select language

Required  
 Preferred