

# A. Mackenzie King

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## CAREER OBJECTIVES

A software development position where excellent object-oriented design and development expertise and extensive website design experience can be used to enhance a team of talented professionals.

## BACKGROUND SUMMARY

Proven experience in all phases of software development from requirements gathering to system verification. Experience with multiple software languages and tools, focusing on Object-Oriented and web technologies. Productive member of development teams, and good self-motivator on individual projects.

## EMPLOYMENT HISTORY

**Website Development Consultant**  
INDIAN AND NORTHERN AFFAIRS CANADA

**December 2003 – Present**  
OTTAWA, ONTARIO

Developed a web based Job Bank System for advertising employment opportunities to the Aboriginal community.

- Worked with client to define and document system requirements.
- Developed data schema to support persisting of required system data in MySQL database.
- Implemented translation framework that provides fully customizable English and French interfaces to system.
- Developed a user authentication and role based permission system to control access to the various levels of functionality within the system.
- Implemented functionality that allows for prospective employers to register their agency within the Job Bank and publish employment opportunities to the website.
- Developed web based administration system to allow system administrators to control user accounts, employment agencies, job postings, and system configuration.

Developed a website Content Management System to streamline the process of updating website content.

- Developed web interfaces that allowed content managers to author, control and publish content to their website.
- Integrated the Content Management System with the Job Bank system to take advantage of authentication and permission system.

Ensured that all design and layout aspects of both systems conformed to the Government Online Common Look and Feel guidelines.

**Tools and Environment:** Linux, PHP, MySQL, HTML, CSS, CVS, Apache, Adobe Photoshop

**Website Manager / Developer**  
OTTAWA-CARLETON ULTIMATE ASSOCIATION – WWW.OCUA.CA

**April 1998 – Present**  
OTTAWA, ONTARIO

Lead website manager for largest Ultimate league in the world.

- Maintained site content, updating and adding pages as required to assist smooth running of the league.
- Coordinated other developers, delegating maintenance responsibilities for various areas of site.
- Participated in implementation of PHP based registration and league management system, built on a MySQL database, which provided player and team management, processing of game score submission requests, and generating reports including league standings and schedules.
- Implemented site redesign moving to consistent and modular style presentation using PHP and CSS.
- Managed site ISP transition in Fall 2000.

**Tools and Environment:** Linux, Perl, PHP, MySQL, HTML, CSS, Javascript, CVS, Apache

Performed a variety of network administration tasks including:

- Managed the transitioning of primary DNS services from an external ISP to a self-hosted server.
- Streamlined Apache server configuration for several hosted domains, as well as SSL protected access to administrative web-based services.
- Provided Windows support to employees including installation and configuration of Windows and other software to run on the internal network.

**Tools and Environment:** Linux, Apache, DNS, SSL, Windows

Participated in the development of two releases of the enterprise caliber Java based Element Management System.

Developed a Software Image Management subsystem for the 1.0 release.

- Designed database schema to be used in Oracle database and implemented Java/JDBC interface layer.
- Defined CORBA interfaces and implemented server-side functionality for transferring software images and data backups between the EMS client/server and the network elements.
- Wrote Perl scripts to manage the software upgrade process on the network elements through their CLI interface.
- Assisted GUI development team in defining components of the Image Management UI.
- Interacted with hardware and firmware developers to track changes being made to network element interfaces.

Redesigned the Fault Management subsystem for the 2.0 release.

- Converted existing system from previous CORBA based infrastructure to Java/RMI.
- Designed a new data schema to function with new Objectivity object-oriented database.
- Modularized code to simplify any future required extensions of the system.
- Split fault processing mechanism over multiple threads to prevent processing backlog by any one stage.
- Combined modifications improved Fault throughput performance 5 fold.

**Tools and Environment:** Solaris, Java, Corba, RMI, CVS, SNMP, Oracle, Objectivity, JDBC, MagicDraw UML, Unix Shell, Perl

Redesigned primary C++ based statistics translator component.

- Increased overall system throughput by 50%.
- Coordinated code changes and testing process with 2 others in development team.

Executed portions of product's design verification process, identifying, and troubleshooting issues in multiple areas of the product, including areas outside immediate area of expertise.

Acted as team lead for a small group tasked with developing a custom warm standby solution for a major customer.

- Tracked team to very tight 2-week deadline.
- Implemented failover detection trigger and package installation module.

Conducted root cause analysis of deficiencies in the product, identifying specific areas that required changes and improvements, and supplied estimates for implementation to management.

Acted as co-prime overseeing product installation system.

- Implemented new install and upgrade functionality for new areas of the product.
- Resolved issues with existing install and upgrade functionality.
- Worked closely with fellow co-prime in defining on overall strategy for the install and upgrade system.

**Tools and Environment:** Solaris, C++, Informix, Unix Shell, Rational Rose, ClearCase, SCCS, Rational Unified Process

## Software Developer

NORTEL NETWORKS - DMS DELIVERY SYSTEMS

**May 1996 – Oct 1998**

OTTAWA, ONTARIO

Primary developer for C++ and ObjectStore based internal tool designed to streamline the process of tracking data schema changes between DMS software releases and improve employee productivity in managing those changes.

- Compiled system requirements from area experts.
- Developed application for importing existing data schemas and identifying discrepancies between releases.
- Designed client interface for managing and tracking schema changes.

Product support engineer.

- Assisted internal developers with projects that used department owned software modules.
- Diagnosed and corrected deficiencies in department owned software modules as reported from test centers and from the field.

**Tools and Environment:** HP/UX, C++, ObjectStore.

## EDUCATION

**Bachelor of Science (Advanced)**

UNIVERSITY OF KING'S COLLEGE

**1996**

HALIFAX, NOVA SCOTIA

*Major:* Computer Science

*Minor:* Philosophy

High School Bilingual Diploma

## TRAINING

**Rational Unified Process Overview** – RATIONAL

**2000**

**Introduction to DBTools.h++** - ROGUEWAVE SOFTWARE

**1999**

**ClearCase Basics for Unix** - RATIONAL

**1999**

**Java Programming** (*Sun Certified Course SL-275*) - LEARNIX INC.

**1998**

**Orbix & CORBA: Building Distributed Applications** - IONA TECHNOLOGIES

**1998**

**C++ Programming and Object-Oriented Database Design with ObjectStore** - OBJECT DESIGN INC.

**1997**

**ObjectStore Performance Tuning** - OBJECT DESIGN INC.

**1997**

**Advanced OOA&D, Design Patterns and Programming using C++** - OBJECT MENTOR INC.

**1997**

**Software Quality Engineering** - UNIVERSITY OF OTTAWA

**1996**

## INTERESTS

Physical activities including playing Ultimate, cycling and inline skating.

Proficient on several musical instruments including guitar, bass, and violin.