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## SUMMARY

Mr. Jason Mulligan has 10 years of database administration, design, and application development experience. He is well versed in creating and deploying software, and administrating servers (Windows 2000, 2003 R2, and 2008 R2 & Linux distributions). In addition, he has consulted on hardware purchases and deployment related to database administration.

Throughout his career, Mr. Mulligan has demonstrated his ability to work effectively with various teams and other parties in the successful completion of various projects. He is experienced in working with users as well as with programming and business teams. He is well organized, consistently meets deadlines, and adjusts priorities based on urgent requirements. During his latest work experience, he made himself available on-call outside of normal office hours to respond to critical system issues; he gained experience working as part of a virtual team across different time zones.

Currently developing and releasing JavaScript based tools via avoidwork inc., Mr. Mulligan has a strong passion for his work, and takes pride in delivering a quality product.

Mr. Mulligan currently holds a valid Government of Canada security clearance at the Secret level, expires: April 28, 2019.

## COMPUTER SKILLS

### Languages

Proficient in: ASP, C#.Net (2.0 & 3.5), PHP, JavaScript (including AJAX & JSON), XML, HTML, XHTML  
Familiar with: Visual Basic.Net (2.0 & 3.5)

### Software

Applications: Adobe Photoshop, Adobe Dreamweaver, Apache, Aptana Studio, Eclipse, Git, IIS, Komodo Edit/IDE, Mercurial, SQLYog, SVN, Visual Studio, Visual SVN Server, Visio

Database: Access, SQL Server (7/2000/2005/2008), MySQL (4/5), PostgreSQL

Platforms: Linux (RHEL/Fedora/CentOS/ClarkConnect/Debian/Slackware/Ubuntu), Windows (NT/2000/2003 R2/2008 R2/Vista)

## EXPERIENCE

### Software Developer

2010 - Present

*MapleWorks Technology*  
<http://www.mapleworks.com>

Working as part of a remote team of software developers on a SaaS application, which uses the Agile development methodology. My server-side development includes database schema alters, function & query creation and optimization, as well as PHP 5.2 / OOP programming. My client-side development includes CSS creation and optimization, JavaScript function creation; and correcting differences of GUI rendering between Internet Explorer and FireFox.

- Collaborated with team members on application & business logic implementation; presented alternative methodologies.
- Expanded the team's responsibilities with the client's database by demonstrating advanced knowledge and ability to produce enterprise quality solutions (functions, stored procedures, schema alters & recommendations).

- Expanded the team's responsibilities with client-side JavaScript and CSS development with "mad skills" (client Sr. Programmer's opinion via email to PMP/Scrum Master).
- PHP work included the creation and refactoring of functions & design pattern based objects, and business logic implementation.
- Created an advanced pure ExtJS 3.2.1 based GUI for administrating a part of the SaaS web portal, using AJAX and XML.
- Created a "standard" form validation function for required fields (element/type/expectation), and prototyped it onto the existing validation object. Expected to be deployed during regression and hardening sprints
- Created the first database unit test for a schema alter I created; using plpgsql. It could be executed directly from the database, or an external application.
- Suggested, and helped setup a developers blog to share project knowledge.
- Suggested and presented a case study on an in-house XMPP server for team/client interaction.
- Maintained team section of company wiki.
- Created and refactored Bash shell scripts.
- Created and refactored RPM spec files.
- Refactored L10N language files.
- Installed and configured a KDE/FreeNX based GUI on virtual development server to work directly on it; to work around a "trap" caused by local copies of files.

## Programmer Analyst

2009

### *Department of National Defence (CDA)*

Working within a remote WAMP environment I completed various types of web development tasks assigned by the project manager. Deliverables were submitted and managed via SVN.

- Created XML schema to be used for multilingual PHP templates.
- Created PHP functions for caching XML document in a PHP session as a Std object by using JSON encoding/decoding; to deal with a PHP bug.
- Deployed English and French language support in multiple applications.
- Retrieved PHP template nodes from XML using XPath queries.
- Corrected CSS errors for cross browser rendering.
- Optimized multiple PHP functions; in some cases shrinking the code to 1/10<sup>th</sup> the original size and making it faster at the same time.
- Created PHP modules for various web applications using AJAX to deal with UX issues.
- Identified and implemented a solution for memory management issues with AJAX modules.
- Confirmed & debugged work of team mates.
- Debugged and optimized a PHP based calendar based schedule generator.
- Debugged various stages of multiple web applications, correcting logic & render errors.
- Debugged various PHP functions to reflect database software upgrades.
- Updated various PHP functions to reflect DB schema changes.
- Created set of MYSQL stored procedures for retrieving an ordered data set based on recursion.

- Prototyped a MYSQL user defined function for generating field values to be used in ordering data.
- Corrected erroneous SVN submissions by a junior team member by request of project manager; correcting the code time line on the trunk.
- Corrected & optimized dynamic SQL queries for debugging and revisions.
- Created database schema based on technical documents.

## Web Developer

2009 - Present

<http://jenergize.com>

An online photo gallery showcasing the work of Jennifer Roussele using multiple Open Source applications with Flickr integration. This approach lets the client self manage the content, and has a low total cost of ownership.

- Chose an Open Source web application based the client's needs.
- Instructed Client on how to use the web application and various services.
- Created custom JavaScript that relies on W3C standards.
- Loaded custom JavaScript via third party theme.
- Confirmed standard rendering across all hardware & software platforms.
- Integrated Flickr content using the Flickr/Yahoo API and PHP.
- Cached Flickr content locally with PHP and XML.
- Configured site security to block access to cache files.

## Designer / Senior Developer

2009 - Present

<http://avoidwork.com>

This website is a showcase of multiple technologies coming together in a cohesive package, for easy management and maximum exposure. As well as being the corporate website, a suite of JavaScript applications is under development and some have been released for public use.

- Website validates as XHTML 1.0
- Created CSS for standard rendering across all hardware & software platforms.
- Created a Master Page template and corresponding PHP5 object for rendering the website.
- Created seasonal HTML templates that are automatically loaded based on the web server's date.
- Created flexible Apache Mod\_Rewrite rules to falsify website structure.
- Created website content template with Search Engine Optimization (SEO) as the highest priority.
- Created custom JavaScript to validate form items.
- Integrated social networking site Twitter.com using XML and PHP.
- Cached Twitter content locally with PHP and XML based on timestamp of last retrieval.
- Created aFrame, a light weight JavaScript/HTML5 framework designed to simplify the creation and maintenance of an advanced GUI on any platform (computers, smartphones, netbooks, settop boxes, etc). It will be be the basis of version 2 of the following web apps, as well as future programs.

- Prototyped and created aw:Browser, a “Web 2.0” JavaScript directory browser that relies on AJAX/JSON/PHP/Mod\_Rewrite and validated CSS for standard rendering on multiple hardware and software platforms.
- Released aw:Browser under the MIT License for reuse by other programmers/developers.
- Development of aw:Browser continues with updates available on the website.
- Prototyped and created aw:Calendar, a framework friendly JavaScript calendar that relies on validated CSS for standard rendering on multiple hardware and software platforms.
- Released aw:Calendar under the MIT License for reuse by other programmers/developers.
- Prototyped and developing aw:Mail, an email client based on the aw:Dashboard JavaScript framework with JSON data transportation and XML/PHP5.
- Designed XML schemas for various PHP5 objects, to be used as user data storage in lieu of a database.
- aw:Mail XML work is primarily XPath based.
- aw:Mail is based on a Master Page template and corresponding PHP5 object for rendering the website.
- aw:Mail HTML templates are automatically loaded based on client web browser.
- Created aw:Mail iPhone specific template optimized for the unique UX, which is automatically loaded via PHP.
- Created flexible Apache Mod\_Rewrite rules to falsify website structure.
- Development of aw:Calendar continues with updates available on the website.
- Created XML schema to be used for multilingual PHP templates.
- Created PHP functions for caching XML document in a PHP session as a Std object by using JSON encoding/decoding; to deal with a PHP bug.
- Deployed English and French language support in multiple applications.
- Retrieved PHP template nodes from XML using XPath queries.
- Implemented VisualSVN Server as a repository for all projects.
- Implemented “guest” SVN account for public projects with Read-Only access.
- Integrated SVN with multiple development tools such as Adobe Dreamweaver and Microsoft Visual Studio.
- Installed Windows Server 2008 R2 x64 Standard edition on in-house development server.
- Configured Active Directory forest with network storage of user’s data on a hardware RAID5 disk array.
- Setup Group Policy security of Active Directory forest.
- Planned and implemented a data storage and recovery plan for sensitive data.
- Installed and configured SQL Server 2008 for optimum performance on in-house Windows 2008 R2 development server.
- Installed and configured IIS7.5 on in-house Windows 2008 R2 development server.
- Created custom JavaScript dashboard for development server’s “splash page”.
- Created validated CSS for JavaScript dashboard for standard rendering on multiple hardware and software platforms.
- Created custom C#.Net 3.5 class library for generating JSON data to populate JavaScript dashboard.
- Created custom PHP5 class for generating JSON data to populate JavaScript dashboard.
- Created Windows server dashboard using a Microsoft design pattern in Visual Studio 2008.

- Created Linux server dashboard using a Master Page template and PHP5 object.
- Installed and configured A51's ActiveCollab project management software on sub-domain.
- Integrated WordPress content via RSS2.0 Protocol.
- Parsing RSS feed with XPath queries using PHP.
- Cached WordPress content locally with PHP and XML based on timestamp of last retrieval.
- Caching XML with MD5 encryption of a string representing the data source for the filename.
- Configured site security to block access to cache files.

## **Designer / Web Developer**

**2009 - Present**

<http://jasonmulligan.com>

The goal of this website was to create a "Web 2.0" application that is platform independent and used other internet based services for content management, promotion and E-Commerce.

- Website validates as XHTML 1.0
- Created CSS for standard rendering across all hardware & software platforms.
- Created a Master Page template and corresponding PHP5 object for rendering the website.
- HTML templates are automatically loaded based on client web browser.
- Created iPhone specific template optimized for the unique UX, which is automatically loaded via PHP.
- Created flexible Apache Mod\_Rewrite rules to falsify website structure.
- Created website content template with Search Engine Optimization (SEO) as the highest priority.
- Created custom JavaScript to validate form items.
- Integrated social networking site Twitter.com using XML and PHP.
- Cached Twitter content locally with PHP and XML based on timestamp of last retrieval.
- Integrated Flickr content using the Flickr/Yahoo API and PHP.
- Cached Flickr content locally with PHP and XML based on timestamp of last retrieval.
- Caching XML with MD5 encryption of a string representing the data source for the filename.
- Created custom JavaScript dashboard for assembling the website in the web browser using MIT licensed aw:Browser, aw:Calendar and aw:Dashboard.
- Created custom PHP5 for generating JSON data to populate JavaScript dashboard.
- JavaScript dashboard relies on web browser DOM for standards compliancy.
- Data transportation is AJAX/JSON based.

## **MS SQL Database Administrator / Senior Web Developer**

**2001 - 2009**

*HKXPat.com Ltd.*

<http://www.asiaxpat.com>

### **MS SQL Database Administrator:**

As a Database Administrator, Mr. Mulligan worked with Microsoft (MS) SQL Server 2000, 2005 in test and production environments and with MS SQL 2008 Server in test environment.

- His responsibilities included the following:
- Installed and configured new SQL Servers.
- Migrated databases to new servers.
- Consolidated 13 databases into one centralized database.
- Designed and amended: over 3,000 stored procedures; over 100 user defined functions; and over 100 table triggers.
- Designed and tuned table indexes for performance as part of on-going schema modification.
- Created new tables and modified existing database schema to meet the requirements of new projects.
- Designed and implemented rule sets/methods for data exchanges.
- Tuned various stored procedures for better I/O performance.
- Extended the production database to meet new database requirements.
- Consulted on hardware platform of production servers (CPU, memory and raid configurations).
- Created backup procedures for transaction logs and databases to allow for quicker recovery of data.
- Worked with other parties (business partners) to define data transport methods for various projects, such as importing records from another system into the primary database.
- Created rule sets for users to enter and update data.
- Analyzed and implemented various data conversion procedures for business-to-business exchange via various file formats (e.g. XML, CVS).
- Designed, identified, and implemented security procedures to deal with brute force attacks (such as injection of valid data via by-passing the web based front-end).
- Assessed and implemented user security; and configured IIS V6 user/file permissions and system accounts.
- Proposed and configured failover clustering of production servers (Server 2000) (primary in Hong Kong, back up in San Francisco) to ensure uninterrupted access to the database.
- Proposed and planned the migration from Server 2000 to Server 2005.
- Worked with users to explain and resolve database issues (e.g. recovered data/records that have been disabled and or archived).
- Consulted/advised programming teams about data structure, defaults/presets, and overall schema design.
- Worked with Microsoft SQL Server 2000, 2005, and 2008.
- Researched, analyzed, and evaluated new or evolving products/platform technology for integration/application in the client environment.
- Recommended the use of XML for business to business data transfer and recommended JSON data format for new data transportation requirements.
- Interacted with the MS Developer Network (MSDN) to keep abreast of current and developing topics and technologies.
- Well organized, consistently met deadlines, and adjusted priorities based on urgent requirements; assessed and analyzed database issues and re-prioritized his own work based on his evaluation of priorities.
- Available and able to resolve problems on short notice to meet deadlines.
- Kept well-organized records which enabled him to respond promptly to requests for information.
- Available on-call outside of normal office hours to respond to critical system issues; due to time

differences, was available outside of his normal work hours to interact with the office in Hong Kong.

- Wrote project implementation plans and summaries for large, complex database projects, including migration from Server 2000 to Server 2005 and the consolidation of databases.
- Discussed and explained technical concepts and issues with non-technical audiences and managers (e.g. discussed and explained hardware and software requirements, web server platform upgrade, database requirements, and total cost of ownership implications and issues).

### **Senior Web Developer:**

- Prototyped and developed a custom ASP web application with SQL Server database to meet the rapidly changing goals of the company. Currently, there are more than 500,000 registered users across a network of 15 websites.
- Advocated W3C standards.
- Designed and implemented a custom login procedure based around multiple Server generated keys, allowing for Users to safely login from multiple locations.
- Designed and implemented various blocks for attack vectors to the authentication.
- Created a custom Administration dashboard to manage content such as Discussion Forums, Classifieds, Realty and Personal Ads.
- Created a custom User dashboard to manage content such as various types of Ads and User to User messages.
- Created a message system used for Admin->User, System->User and User<->User messaging with standard mailbox features.
- Designed and implemented anti-spam protocols for the message system.
- Added Google Maps to the Realty content when the API became public access.
- Designed and created a custom Discussion Forum featuring cross-site content and local-site content.
- Designed and created a custom Classifieds Ad system with multiple types of Paid Memberships for various types of ads.
- Designed and created a custom Realty Ad system with B2B data delivery as a feature.
- Consulted on B2B data integration within the Realty Ad system.
- Created a C#.Net 3.5 shell application to consume a SOAP (XML) feed of Realty Ads and insert the data into the production database.
- C#.Net shell application XML parsing was based on XPath queries.
- C#.Net shell application required Globalization for various XML nodes.
- Configured weekly automated execution of C#.Net shell application.
- Designed and created a custom Personal Ad system with Paid Membership for access to specific features.
- Created a custom real-time E-Commerce system for ad submission, payment delivery and Ad status set to 'Live'.
- Deployed E-Commerce protocol on Classifieds section.
- Deployed E-Commerce protocol on Personals section.
- Deployed E-Commerce protocol on Realty section.
- Designed and created a Business Directory modeled after Yahoo, featuring paid Ad status.

- Implemented RSS and XML feed consumption with local caching for “front page” display in various news widgets such as “Quote of the Day” and news feeds using ASP.
- Created custom JavaScript for a ticker banner.
- Created custom JavaScript for form validation.
- Created custom JavaScript for floating menu displays.
- Created custom JavaScript for AJAX widgets.
- Designed and created a large AJAX widget for the “front page” to display various site-wide content and a local map loaded via the Google Maps API.
- Created multiple site templates based around SSI includes of ASP code for dynamic content control.
- Designed and created an automated XML feed consumption with database caching of Weather data provided by TheWeatherChannel.com.
- Weather XML parsing relied on XPath queries.
- Designed and created various Content Management Systems over the course of the project, ranging from micro-blogs to advanced content management with WYSIWYG editors.
- Created custom VB.Net 2.0 web forms (output templates) for the client’s banner serving software.
- Consulted on hardware purchases and leases.
- Consulted on website design, features and advertising placement.
- Consulted on, and prototyped many administration tools such as sales forecasting for advertising and content recommendation based on user habits via tracking.
- Re-designed and deployed the website twice (Adobe Photoshop composite to functional wire-frame).
- Implemented and maintained thousands of advertising campaigns via banner server and website wire-frame.
- Led a small team of developers during 2003-2004 to create games, turn-key web applications and administration tools for HKXPat.com Ltd and clients while staying within budget and on schedule.
- Created micro-sites and banners for clients such as Asahi, Cathay-Pacific, Heineken, House Hunters Hong Kong, HSBC, The Leading Hotels of The World, Jones Lang Salle and many others.
- Modified various templates for Search Engine Optimization.
- Created flexible ISAPI\_Rewrite rules to falsify website structure.
- Created custom RSS feeds for all website sections relying on ISAPI\_Rewrite rules.
- Implemented URL Rewrites, Search Engine Optimizations, RSS feeds (XML) and custom AJAX widgets.
- Administered Linux servers (ClarkConnect/Debian) for Email, DNS and VPN.
- Installed Windows Server 2000 Standard edition on in-house development server.
- Planned and implemented a data storage and recovery plan for sensitive data.
- Installed and configured SQL Server 2000 for optimum performance on in-house Windows 2000 development server.
- Installed and configured IIS6 on in-house Windows 2000 development server.
- Installed and configured SQL Server 2000 for optimum performance on Windows 2000 production server.
- Installed and configured IIS6 on Windows 2000 production server.
- Audited website performance using XML files generated by production database.

- Documentation work included developing and writing system procedures summaries for use by the team.
- Consulted on hardware platform of production servers (CPU, memory & raid configurations).

## **MS SQL Database Administrator / Designer / Web Developer**

**1998 - 2001**

*ISYS Technology*

<http://www.isys.ca>

### **MS SQL Database Administrator:**

- Tuned and modified offline and online database systems.
- Designed stored procedures and user defined functions.
- Designed and amended table triggers.
- Modified configuration for optimal performance.
- Consulted and advised on server configuration.
- Recommended ideal server configuration to meet client needs.
- Designed and tuned table indexes for performance as part of on-going schema modification.
- Designed test database for log shipping.
- Performed index tuning on a billing database to optimize performance.
- Designed stored procedures and user defined functions.
- Designed and amended table triggers; modified configuration for optimal performance; and performed index tuning on a billing database to optimize performance.

### **Designer / Web Developer:**

- Prototyped, designed and programmed a Realty portal for Sudbury Homes (<http://www.sudburyhomes.net>), allowing for members (realtors) to post ads using MySQL and PHP.
- Prototyped, designed and programmed a custom Content Management System for Sudbury Fine Cars (<http://www.sudburyfinecars.com>) using Access and ASP.
- Consulted on, and programmed a website initiative between ISYS and Science North using MySQL and PHP.
- Created multiple micro-sites for bands signed to Tommy Boy Records (A Division of BMG Canada), with Content Management Systems and Email list features using Flash, MySQL and PHP.
- Prototyped and created a web portal for Cambrian College which featuring course scheduling, blogs, teacher aids and community tools using ASP and MS SQLServer.
- Prototyped and created the "SmartPay" E-Commerce system for the City of Greater Sudbury. This was the first real-time E-Commerce based traffic offence ticket payment application in Canada; a ground breaking initiative between the City of Greater Sudbury and the Royal Bank of Canada using PHP.
- Coordinated the automated weekly data delivery for the "SmartPay" application over SFTP.
- Created a survey tool for Stitches Inc (<http://www.stitchesonline.com>) to gather user feedback on promotions and sales using ASP and MySQL.
- Created a mail list database for Stitches Inc (<http://www.stitchesonline.com>) to gather user email addresses for various promotions using ASP and MySQL.

- Installed and configured eCommerce application for Stitches Inc on a sub-domain (<http://store.stitchesonline.com>) using PHP and MySQL.
- Created website template for Stitches Inc online store.
- Installed and configured eCommerce application for The Shop on their website (<http://www.theshop.ca>) using PHP and MySQL.
- Created website template for The Shop's website and online store.
- Performed data entry of products into The Shop's online store, including generating thumbnails of products.
- Prototyped, designed and developed a Flash based CBT for an INCO project based on Visio assets; showcasing a water flow system with narration.
- Integrated the billing application with the ISYS website allowing users to check account status.
- Created corporate identity multiple clients.
- Created a Flash based portal for Telemedia Inc. (<http://www.q92rocks.com>) featuring a news micro-blog and various contests to enter, using ASP and MySQL.
- Consulted on, and launched online broadcasting for Q92.7 FM radio station using Windows Media Services.
- Created a portal for Telemedia Inc. (<http://www.ezrocksudbury.com>) featuring a news micro-blog and various contests to enter, using ASP and MySQL.
- Created a widget for Regional Cable's "RevNet" allowing ISP cable customers to query their monthly usage with daily stat updates. The widget was deployed via AJAX and Iframe on multiple ISP webpages.
- Modified the billing system (Access based) to meet the changing needs of the administration.
- Installed and configured IIS4 and SQL Server 2000 on multiple client owned servers.
- Maintained over 100 websites with content updates and re-designs delivered directly from the clients.
- Created functional website wire-frames from Photoshop composites delivered by the Lead Designer.
- Researched and developed tools and techniques for client site creation and management using ASP, PHP, MySQL and JavaScript.
- Created a Business Directory modeled after Yahoo using ASP and SQL Server.
- Created a custom E-commerce store for selling ISYS clothing online using ASP and MS SQLServer 2000.
- Audited ISYS website performance with XML data sources, local and remote via XMLHTTP GET (known as AJAX).
- Created a custom E-commerce portal for selling debentures online for HKXPat.com using ASP and MySQL.
- Senior programmer on taking over the HKXPat.com project and Web Portal development (<http://www.asiaxpat.com>).
- Implemented and advocated W3C standards for all web projects.