Andrew Lai

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TEchnical Skills

* Microsoft Secure Development Life Cycle, SEO strategies, ASP.NET, MVC, WebForms, Web Service API, WCF, Web Service, Entity Framework, Repository Design Pattern, Bootstrap, Transact SQL, JQuery, JQueryUI, AngularJS, CSS, C#, ADO.NET, Windows Service, SQL Server, SQL Profiler, Microsoft Visual Studio, DTS, Java Servlets, Java Server Pages (JSP), Javascript, HTML, SQL, Visual Basic, Unix, Javascript and Java

Professional Experience

Canadian Heart Research Center., Toronto, ON Canada

*Director of IT Oct 2014 – Current*

* Designed/architected and hands on developed numerous secure physician bilingual portals using the .Net 4.0 Framework, MVC, webform and MS SQL RBMS. Examples include (amgen.ccpdhm.com,www.acsiii.ca,www.goalcanada.ca,www.protectdm.ca,www.vistadm.ca,www.cholestabetes.ca) Physicians are invited electronically and registered online. Upon registration he can fill in patient data in a Electronic Case Report Form for clinical research purpose. Security is a high priority for physician web portal and patient data is encrypted in storage using current cryptography techologies and also in transit via https protocol. The results of one of the clinical study (www.goalcanada.ca) is published in **Canadian Journal of Cardiology, volume 33, Number 10S.**

MEDiRESOURCE, Toronto, ON Canada

*Director of Development, Oct 2012 – Oct 2013*

* Designed and architected a solution for a bilingual online pharmacy for Costco based on stringent security and business requirements using the .Net 4.0 Framework and MS SQL RBMS. (https://www.costcopharmacy.ca, https://fr.costcopharmacy.ca) Compliant to PCI DSS, users can order drug and submit payment securely online and have the drugs delivered to their desired destination via Canada Postal Services. The successful deployment of the online pharmacy to Ontario prompted Costco to expand the initiative and additional services to other provinces in Canada such Alberta and Saskatchewan.
* Designed and architected a solution for an internal Order Management System for the Costco pharmacist to process drug orders placed by patients online. The Order Management System is a highly complex and componentized system that is designed to work and communicate to different business end points and be able to transfer personal information in a secure manner. The Order Management System provides a supplemental mode of conducting business in addition to the traditional brick and mortar stores.
* Implemented a secure development life cycle based on Microsoft's Simplified SDLC for developers to follow and develop more secure applications. Microsoft's SDLC addressed data privacy, security requirements and provided guidelines to manage personal identifiable and personal health information. Using more secure development methodologies and compliant to the PCI DSS standards, we are able to win projects from big clients like Costco, Manulife, Great West Life and Shoppers Drug Mart.

*Manager of Development, Feb 2009 – Oct 2012*

* Managed staff of 20 consisting of developers, IT personnel, quality assurance testers. Procured and trained staff, transition processes and infrastructures to a more secure hosting facilities and enhanced development process.
* Designed and developed SOAP-based webservices (<https://pca.patientconnect.ca/patientconnect/PatientConnect.asmx>) to transfer person identifiable and health information from pharmacies to a centralized server for processing. Developed the algorithms required to process personal health information and produced customized brochure contents in css/html format for patient care and education purposes in a pharmacist's daily workflow. The inclusion of customized health information and targeted messages have improved drug adherence by more than 10 %, driving up revenues from drug dispensing fees, supplements and other products sold in store.

*Team Lead, Apr 2007 – Jan 2009*

* Led development of a Health Risk Assessment (HRA) portal where Manulife employees can login (https://www.myhealthforlife.ca) via their membership benefit site to fill out a questionnaire and set up action plans to improve their physical health. Developed a highly customized reporting system where administrators can login and run predefined reports in various file format (excel, html and pdf).
* Researched and implemented best SEO practices in development to boost page ranks in search engines. The findings resulted in significant boost in page ranks in search engine such as Google, Yahoo and are adopted as standard practice in all future site builds. Certain drug and disease keywords (metformin, crestor, cancer, diabetes) are constantly ranked in first 2 pages in Google.

Education

University of Phoenix, Phoenix, Arizona, United States

* 2006 Masters Degree in Information System and Management

University of Toronto, Toronto, ON, Canada

* 1996 Honor Bachelor of Science in Immunology

Seneca College, Toronto, ON, Canada

* 1998 Diploma in Computer Analysis and Programming