

Technical Skills

- Object Oriented Programming with C++, C#, Java, and VB.net
- Functional Programming with C
- Web Programming using C# Web Forms, C#/MVC, Java/Spring Framework, Javascript, HTML/CSS, limited PHP, Responsive Design, and VB.net Web Forms
- Developing reports using Crystal Reports, RDL, RDLC, and HTML/CSS
- Windows Desktop Application Programming using C++, C# and Windows SDK
- Web Services/REST Calls/Soap Calls/Json Parsing/XML Parsing
- Designing and maintaining databases using Microsoft Access, Microsoft Sql, PostgreSQL, MySql, and Oracle
- Designing Oracle Packages, DTS Packages, and SSIS packages
- Android/Mobile Programming using the Android SDK and HTML 5
- Wire frame design
- Applying design patterns and anti patterns such as builder, dependency injection, factory, ioc, mediator, and visitor
- Large integer libraries such as GMP and MPIR
- Web Security/Application of Encryption and Hashing Algorithms

Tools / Frameworks /Methodologies

- Scrum and XP Agile SDLCs/Waterfall SDLC
- Behavioral/Test Driven Development
- .Net Frameworks 1, 2, 3.X, 4.X
- JDK 5, 6, and 7
- .Net MVC 3, 4, and 5
- Spring Framework 3.X
- EntityFramework and EclipseLink ORMs
- Balsamiq/Fog Bugz/Jira/Jama Contour
- Continuous Integration/Iterative Development/Pair Programming/Version Control/Sprint Planning/Writing User Stories
- HIPAA/Healthcare IT/ICD 9/ICD 10
- Android Studio/Eclipse/IntelliJ/Visual Studio
- Enterprise Manager/Oracle Sql Developer/Sql Management Studio/Toad

Education and Active Certifications

- Bachelor's Degree in Computer Science and Engineering from Michigan State University with a cognate in Business (May 2009)
- Microsoft Certified Solution Developer: Web Applications (Nov 2013 MC ID 3870685)
- Microsoft Specialist: Programming in HTML5 with Javascript and CSS3 (Nov 2013 MC ID 3870685)
- Microsoft Certified Professional (Mar 2007, Renewed Apr 2013 MC ID 3870685)
- Certified Scrum Master (Dec 2012, Renewed Dec 2014, CSM 231639)

Selected Project Highlights (Nov 2005-Present)

Newborn Screening Online for Michigan's Department of Community Health

Dates: Nov 2013-Jan 2015

Company: Kunz, Leigh, and Associates

I was the lead architect and lead developer for the State of Michigan's Newborn Screening Online (NBSO) system for Michigan's Department of Community Health (MDCH). The system modernized the State of Michigan's existing ordering system which was done by phone or via mail and used an antiquated access database to maintain all the state's ordering and testing data. The system was developed using .Net Framework 4.0/C#, MVC 4, JQuery/JqueryUi 1.9, Bootstrap Javascript/CSS Frameworks, RDLC Reporting, EF 5, and an Oracle Database.

Accomplishments:

- Upgraded application from crude access database to modern web application
- System is used yearly by hundreds of hospitals and thousands of birth mothers and midwives
- Automatic import of card inventory data
- Provides real time status of all newborn screening and newborn screening related inventory
- Identified issues with existing inventory data from existing card vendor
- Automatic email notifications when inventory is low, when refunds are overdue, or if unprocessed orders are building up in the shipping queue
- Real time status of any specific newborn screening test card (each card has a unique serial number)
- Converted system from invoice based to Credit Card/eChecks and integrated with the State of Michigan's central payment processing system (CEPAS)
- Provided MDCH's accounting with accurate way to determined deferred revenue, before is was based on very inaccurate estimates

MiDB Inquiry and Reporting System for Michigan's Department of Community Health

Dates: Dec 2012-Oct 2013 Maintenance/Upgrades Oct 2013-Feb 2013

Company: Kunz, Leigh, and Associates

Was the lead developer for the State of Michigan's MiDB Inquiry and Reporting System (MIRs). The system was written for Michigan's Department of Community Health (MDCH) and had to interface with the State of Michigan's centralized budget database (MiDB) weekly to process all MDCH related budget data. The system was developed using .Net Framework 4.0/C#, MVC 4, JQuery/JqueryUi Javascript Frameworks, Bootstrap Javascript/CSS Frameworks, RDLC Reporting, Crystal Reports, EF 5, and an Oracle Database.

Accomplishments:

- Increased efficiency of MDCH's Budget Liaison's by eliminating the manual generation of budget reports with automated reports
- Integrated with the State of Michigan's centralized budget database MiDB
- Helped develop an .Net MVC grid that is now used company wide

Children's Special Health Care Services for Michigan's Department of Community Health

Dates: May 2012-Nov 2012

Company: Kunz, Leigh, and Associates

Was the lead developer for the State of Michigan's Children's Special Health Care Service (CSHCS) System Maintenance Project. The system is used to manage the State of Michigan's CSHCS program which helps parents that have children with special medical needs pay their related medical bills. The system used Spring Framework 3.4, Spring MVC, JDK 1.6, JQuery/JqueryUI 1.9, EclipseLink ORM, and an Oracle Database.

Accomplishments:

- Maintained high reliability, the system is used by thousands of people at the Michigan Department of Community Health and Local Health Departments
- Helped implement better development team practices/coding standards
- Upgraded antiquated Spring and JQuery Frameworks
- Added gradle support

Henry Center Event Registration System

Dates: Oct 2011-Apr 2012

Company: Michigan State University

Lead developer for a system that allowed citizens, faculty, staff, and students to prepay/register for various Henry Center hosted events. It replaced a manual system that took up significant amounts of office clerk time and automated all repetitive processes. The system was built using .Net MVC 4.0, JQuery, EntityFramework, and Microsoft Sql Server.

Accomplishments:

- Integrated with MSU's central payment processor CashNET
- Eliminated most of the IT maintenance costs because the system could be maintained by non technical staff
- Reduced overall maintenance by adding features such a reoccurring events and eliminating manual payment processing

Student Instructor and Course Rating System

Dates: July 2010-Dec 2010 Maintenance/Upgrades Dec 2010-Sept 2011

Company: Michigan State University

I was one of the developers that helped design and develop a system that allowed students to anonymously rate and provide feedback about instructors and courses. The aggregated were reviewed to determine faculty and staff teaching performance, course quality, and other issues specific to certain courses. The application was developed using C#, .Net 3.5, Asp.Net Web Forms, JQuery/JqueryUI, Microsoft Sql Report Services, and Microsoft Sql Server.

Accomplishments:

- Significant time savings through automatic data aggregation and reporting over previous system
- Improved user interface
- Significantly decreased technical support time

Scholarship Application and Award System

Dates: June 2008-Mar 2009 Maintenance/Upgrades Mar 2009-Sept 2011

Company: Michigan State University

I was the lead developer for a system that allowed students to apply and be awarded scholarships by

the College of Veterinary Medicine. The system also allowed the College to administer the forms and customize requirements for each scholarship. The system could dynamically generate web based scholarship applications and ensured applicants met the minimum requirements for each scholarship based on stored biographical data. The system also provided a web based portal so students could continue working on incomplete applications or view the status of already submitted applications. The system also automatically distributed the submitted applications among reviewers and provided a rating system that would determine who the scholarship would be awarded to. The ratings could be overridden and lower ranked candidates could be awarded to help produce a fair distribution of scholarship money. The application was developed using C#, .Net 3.5, Asp.Net Web Forms, JQuery/JqueryUI, Microsoft Sql Reporting Services, and Microsoft Sql Server.

Accomplishments:

- Significantly reduced scholarship application and award times
- Replaced most manual processes with automation and reporting
- Automatically determined student eligibility
- Scholarship fund and award tracking

Student Clerkship Schedule Management Web Application and Automated Scheduling System

Dates: May 2007-June 2008 Maintenance June 2008-Sept 2011

Company: Michigan State University

Architect and lead developer/ of an application used by students/administrators to generate and manage student clerkship schedules. The students clerkship schedule was automatically generated based on submitted student preferences with the remainder being chosen by the student. Students where also permitted to drop, add, and trade schedule slots with each other. The system ensured that each student had a schedule that would meet the minimum graduation requirements. The system provided administrators access to override student schedules, graduation requirements, and the number of slots available each clerkship. The application was developed using C#, .Net Framework 3.5, Asp.Net Web Forms, JQuery/JqueryUI, Microsoft Sql Reporting Services, and Microsoft Sql Server.

Accomplishments:

- Upgraded application from crude access database to modern web application
- Freed up IT/Programmer time by allowing the system to be administered by the non technical faculty/staff responsible for student scheduling
- App handled 240 simultaneous users adding, dropping, and trading clerkships, tested in real situations with up to 120 simultaneous users
- Automatic preference based student schedule generation of 16/20 clerkship rotations (students had 4 optional rotations that they could choose themselves)
- Increased the number of higher ranked preferences
- Dealt with concurrency challenge of many users trying to claim the same resources
- System verified whether or not students were meeting minimum graduation requirements

Biggby and Universal Map Website(s) and Web Store(s)

Dates: Nov 2006-Aug 2006 Maintenance/Upgrades Aug 2006-May 2007

Company: Artemis Solutions Group

Developed the main website(s) and web store(s) for Biggby Coffee and Universal Map companies. The

sites both used a customized version of the DotNetNuke content management system with a custom DotNetNuke Web Store Module. The application was developed with C#/VB.Net, .Net 2.0 web forms, DotNetNuke CMS, and a Microsoft Sql Server Database.

Accomplishments:

- Built systems that could handle large number of visitors/orders
 - Rebuilt the existing web store module
 - Streamlined the checkout process from 6 steps to 2 steps
 - Created an electronic map purchase integration system
 - Optimized Page Load Times
 - Integrated with google data analytics
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