

Benjamin Bozsa

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HIGHLIGHTS

- Lead the development and design, strategy and planning, implementation and deployment for projects for Tagr Systems Inc., Saint Street Inc. and Alberta Health Services
- 5+ years experience with Oil and Gas — land management, tubulars, mineral, surface rights and drilling bits
- Technical Lead of a team that utilized Agile Methods and TDD in developing a new SMART Table SDK
- A key developer of Hydra: a flexible software package for ‘one-click’ hydrogen-deuterium exchange mass spectrometry (HDX-MS) data analysis. This software package was highly received at the 56th ASMS Conference on Mass Spectrometry and Allied Topics held June 1-5 2008, Denver, Colorado
- Trained and mentored fellow developers

EDUCATION

University of Calgary, Calgary, Alberta

B.Sc. in Computer Science, 2005

Areas of Concentration: Embedded Systems

PUBLICATIONS / CONFERENCE DEMOS

Refereed Journal Papers

- Slysz GW. Baker CAH. Bozsa BM. Dang A. Percy AJ. Bennett M. Schriemer DC (2009). Hydra: software for tailored processing of H/D exchange data from MS or tandem MS analyses. [BMC Bioinformatics].

Posters

- Gordon W. Slysz, CJ Baker, Benjamin M. Bozsa, Anthony Dang, David C. Schriemer. HYDRA: a flexible software package for ‘one-click’ HDX-MS data analysis. 56th ASMS Conference on Mass Spectrometry, 2008

Demos

- HYDRA, 56th ASMS Conference on Mass Spectrometry and Allied Topics held June 1-5 2008, Denver, Colorado
- SMART Table, 22nd Annual ACM Symposium on User Interface Software and Technology, Victoria, BC, 2009

AWARDS AND ACCOMPLISHMENTS

- **SMART Rookie of the Year April 2010** Awarded to the most outstanding newcomer who through their efforts and accomplishments has defined the standards of the SMART Product Development team
- **SMART Outstanding Support Runner-up May 2011** Awarded to the individual who has exemplified the greatest all-round ability in supporting customers. This includes handling stop ship, showstopper issues and fixing complex bugs. In addition, proactively focuses on quality and technical architecture to reduce future support requirements
- **SMART IP Dinner** Every year the executive management recognizes and acknowledges the efforts and accomplishments of the many people within the company who have contributed to SMART's intellectual property portfolio. Based on my Invention Disclosure submissions and overall contribution to SMART's IP portfolio I have attended the IP Dinner each year that I have worked at SMART.

TECHNICAL SKILLS

Programming Languages and Technologies

- C, C++, Objective C, C#, Java, Visual Basic, Assembly, ASP.NET MVC, Web Api, SignalR, Razor, ADO.Net, HTML, DHTML, JavaScript, JSON, JQuery, KnockoutJS, CSS, XML/XSLT, WPF, Windows Forms, Flex,

Action Script, Silverlight, WDK, WCF, Xamarin, MonoTouch, NHibernate, Castle Project, log4net, Stimulsoft, Azure, Wix, BrowserStack, OAuth 2, OpenID, Jenkins, AngularJS, NodeJS, npm, Gulp, Bower, xUnit and RFID

Databases

- Microsoft SQL Server 20xx and MySQL

Applications and Tools

- Adobe Photoshop, Microsoft Office, Microsoft Project, Microsoft Visio, ArgoUML, Java NetBeans, Flash Builder, Eclipse, Brackets, Fiddler, Postman, Resharper, XCode, dotPeek, TestDriven.net, JSLint, JSHint, Subversion, Perforce, Git and Microsoft Team Foundation Server

Operating Systems

- Maintained and installed the following client/server platforms: DOS, Windows, MAC OS X, various Linux distributions (Ubuntu and Mint) and Windows Server configuring the following server roles: DHCP, DNS, WINS, Active Directory, IIS, File Server and Print Server
- Configured a private network and deployment server for the Alberta Centre for Toxicology (ACFT) and Alberta Health Services (AHS)

PROFESSIONAL EXPERIENCE

Software Consulting, Calgary, Alberta

Principal

Apr 2013 - Present

- *Provided Software Development and Design, Strategy and Planning, Implementation and Deployment for Tagr Systems Inc.*
 - Built www.tagr.ca website for Tagr Systems Inc. Designed a layout template that worked best with the company's content and branding. Provided image editing, stock photo selection, created custom CSS styles and bundled resources ensuring the website is responsive for the target audience
 - Handled and configured domain name purchases, hosting and email services. Automated the build and deployment of the site through Jenkins to adhere to a continuous integration paradigm
 - Designed and implemented a RFID platform for inventory tracking and reporting. The platform consists of various Internet of Things (IOT) interrogation devices that communicate to and from a secure web service hosted on the cloud. The web service contains the business logic and persistence layer for the client. A single page web application communicates to the web services to configure and generate reports to a dashboard
 - Created a fun and entertaining application to highlight the technical properties of RFID such as not requiring "line-of-sight" for product identification. The application consists of RFID enabled playing cards, a custom touch-display equipped RFID interrogation gate and card catching net
 - The RFID card game was utilized for in-house and conference demos and yielded a lot of interest for future business endeavors
 - Technologies used: C#, WPF, ASP.NET MVC, Web Api, SignalR, OAuth 2, OpenID, SQL, Azure, JavaScript, JSON, AngularJS, NPM, Bower, Gulp, Jenkins, Web Deploy, Onion Architecture
- *Created a web version of "Bugs & Drugs" for Alberta Health Services with the requirement for legacy support for the Internet Explorer version 8.0*
 - Gathered requirements, designed and presented a charter that outlined scope, efforts and timelines
 - Created a utility to extract the content from the database used by the iOS and Android implementation and generate that data to be rendered in web form. The extractor utility in a few minutes was able to generate over three thousand html pages while applying custom CSS theme references which, if updated manually, would have taken several months
 - The "Bugs & Drugs" website was themed like the mobile implementations to provide the user a familiar user experience. The web application also provided a unique asynchronous search of key data elements, real-time calculators that avoided any round trips to the server and displayed a dynamically created breadcrumb link trail
 - Technologies used: C#, ASP.NET MVC, Web Api, KnockoutJS, Azure, JavaScript, JSON, Jenkins and Web Deploy

Spira Data Corp, Calgary, Alberta

Senior Software Developer

Jun 2012 – Oct 2013

- *Introduced iterative and agile software development approaches and provided guidance in implementation and tool use*
 - Provided agile training to both management and developers: daily stand-ups (Kanban), sprint planning, story creation and planning poker
 - Established coding standards/reviews and expressed the importance of continuous integration and unit testing
 - Provided mentoring to junior developers
- *Contributed development efforts by fixing bugs and adding features to Spira Data's software solutions: Spira Command, Spira Mobile and Data Exchange*
 - Solely took over development efforts for adding features and bug fixes towards Spira Data's iPhone solution SpiraFT and ensured releases satisfied original deadlines
 - Designed and implemented a ASP.NET MVC financial "Dashboard" prototype web solution that consumed WCF web services
 - Technologies used: C#, WCF, WPF, Windows Forms, XML, XSLT, JSON, TSQL, ASP.NET MVC, HTML, CSS, JavaScript, JQuery, Objective C, MonoTouch and Xamarin

Pandell Technology, Calgary, Alberta

Software Developer

Oct 2011 - Mar 2012

- *Contributed development efforts to Pandell's GeoNexus land management software. GeoNexus is part of the oil and gas solution NexusSuite that provides back-office tools for junior to midsized energy companies*
 - Solely responsible for creating and implementing code, unit tests and the Stimulsoft report template for the Right of First Refusal (ROFR) Export
 - Participated in bug fixing efforts which resulted in an on-time maintenance release of GeoNexus
 - Collaborated with the Pandell Liquid Intelligence (PLI) development team in updating GeoNexus to utilize the new PLI framework features such as custom routing, controller and Microsoft's Razor syntax
 - Technologies used: C#, ASP.NET, JSON, JavaScript, HTML5, JQuery, Stimulsoft, KnockoutJS

SMART Technologies, Calgary, Alberta

Software Developer - Technical Lead

Apr 2011 - Oct 2011

- *Technical Lead of a team of three that utilized Agile Methods and TDD in developing a new SMART Table SDK*
 - *The SMART Table SDK provides a platform for which developers can create multi-touch solutions in their native (framework/technology)'s touch event architecture (WPF 4.0, Flash 10.1, and HTML5) without needing to implement or bridge to a SMART Table specific touch event model. The developer can also utilize SMART Table attributes through an interface implemented in their native framework and it provides a method of packaging and running their application*
 - Responsible for requirement validation, design, architecture, development, testing, usability feedback, documentation and demoing to internal and external stakeholders
 - Extensive use of OOA and OOD, design patterns, enterprise architecture and SOLID principles
 - Provided mentoring and training to new recruits
- Technologies used: C#, Java, Action Script, WPF 4.0, Silverlight 4.0, Java SE 7 and Flash/Flex 10.3, xUnit and TeamCity

SMART Technologies, Calgary, Alberta

Software Developer

Nov 2008 - April 2011

- *Assigned to investigate a critical and time sensitive issue regarding a defective third party vendor hardware component for the SMART Table*
 - Utilized a USB hardware analyzer and USB specifications to diagnose, document and isolate the third party vendor's faulty component
 - Gathered requirements, designed and developed a client/server SMART Table hardware testing solution that allowed for high volume automated hardware validation and reporting
 - Provided software/hardware setup documentation and guidance for deployment in Ottawa's manufacturing facility and Calgary headquarters

- Technologies used: iBootBar, ADU208 relays, C#, .Net Framework 3.5
- Traveled to third party vendor's headquarters to demonstrate the hardware fault and to communicate SMART's acceptance criteria
- *Lead software architect for a music research project that involved real time collaborative performance, composition, and instruction on multiple multi-touch horizontal/vertical interactive devices*
 - Designed and implemented a multi-tiered enterprise architecture design with isolated business logic, creational factory logic and presentation UI for the SMART Table and SMART Board
 - Demoted the project to the CEO, senior executives and other key stakeholders. It was highly received
 - Helped setup the project in SMART's Briefing Centre. The Briefing Centre is SMART's state-of-the-art demonstration and collaboration facility that showcases innovative solutions
- *Attended and demoed the SMART Table at UIST(ACM Symposium on User Interface Software and Technology) 2009 along with an UX (User Experience) specialist and external researcher*
 - Responsible for preparing, shipping, setup/tear down of the SMART Table used for the demo session
 - Created a WPF 3.5 multi-touch application in C# specifically for the demo and trained the UX specialist to be prepared for the demo
 - Created a report and presented the conference highlights to the product development teams in Calgary and Ottawa
- *Collaborated with a UX specialist, industrial designer and a software developer in a research project that prototyped multi-user multi-touch interaction on a vertical interactive surface. The results from the project helped create the flagship SMART Board 800 series interactive whiteboard*
 - Helped develop a flexible framework and flexible presentation layer to explore possible prototype concepts involving complex gestures(pen, touch), collaborative menu behaviors and physical pen tray layouts
 - Technologies used: C#, WPF 3.5
- *Involved with the development of the SMART Table, the world's first multi-user, multi-touch table for collaborative learning in primary schools*
 - Contributed to all aspects of the project including requirements gathering, design, architecture, user interface design, localization, development, testing, usability, and deployment
 - Promoted coding practices, coding standards, and development methodology
 - Participated in fit and technical interviews and provided coaching/feedback and availability to new hires
 - Provided many insights on software architecture and test-based development. Assisted in creating and improving the core SMART Table application manager, Table applications, and Table toolkit
 - Created and implemented the feature of touch logging, playback and reporting
 - Designed the testing architecture to record and evaluate SMART multi-touch Table applications
 - Technologies used: C#,WPF, Silverlight, C++,Flex, Action Script, XML, Java, WDK

Southern Alberta Mass Spectrometry Centre, Calgary, Alberta

Software Developer

July 2006 – Aug 2008

- *Worked in a team of three using Agile Methods and the Unified Process with a strong emphasis in Domain-Driven Development*
- *Organized and coordinated client needs with development efforts*
- *Participated in all aspects of development including requirements gathering, design, architecture, user interface design, development, testing, usability and deployment*
- *Involved with the design and development of three custom Laboratory Information Management Systems (LIMS) for both the Faculty of Medicine (U of C) and the Alberta Centre for Toxicology (ACFT)*
 - Ported and extended modules in a LIMS custom backend to Microsoft's .NET 2.0 Framework
 - Encapsulated each Module's Business Logic (BL) and Data Access Layer (DAL) with pluggable data source by using Design by Contract concepts achieved by Microsoft's Provider Model
 - Participated with designing and implementing a flexible interface in which various methods of payments could be transferred from the Faculty of Medicine to U of C's main campus
 - LIMS were developed for:
 - Microscopy and Imaging Facility (U of C)
 - Flow Cytometry Facility (U of C)
 - Water Testing (ACFT)

- Created a Windows Form application for ACFT staff and an ASP.NET web application for water testing inspectors for the Alberta Health Authority
- Solely responsible for water testing data processing and report generation as well as custom component creation in the windows application
- Technologies used: ASP.NET 2.0, DHTML, JavaScript, CSS, XML, XSLT, C#, NHibernate, .NET Remoting, Castle Project, log4net, SQL Server 2005, NUnit
- *A key designer and developer of a research software product (HYDRA) for the analysis of Hydrogen Deuteron incorporation*
 - Design patterns were used heavily to provide a pluggable architecture for data processing
 - The demo of the software was highly received at the 56th ASMS Conference on Mass Spectrometry and Allied Topics held June 1-5 2008, Denver, Colorado
 - Technologies used: WPF, C#, log4net, NUnit
- *Designed and developed a pluggable laboratory instrument controller for valves, gradient pumps and various third party equipment for setting up and running experiments*

INTERESTS

- Learning new programming concepts and technologies
- Recording music, reading, digital photography and traveling are also interests I enjoy pursuing
- My portfolio can be viewed online at <http://www.benbozsa.ca/>

REFERENCES

- Excellent references available upon request