Mark Ott

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Summary of Qualifications

* Desktop and web application design and development.
* Advanced JavaScript client-side application development
* Experienced server-side web development.
* SQL database development.
* Exceptional attention to detail, dependable, quick to learn new technologies. Agile.

Professional Experience

**PEARSON AUSTIN, TX Jun 2014 – present**

**Senior Software Developer**

***Server-side and Client-side development of Backbone and Play Framework single-page application ( Assessment Banking and Building solutions for Interoperable assessments – ABBI )***

* *Client-side development of ABBI*
  + *Implemented and helped design the scoring functionality in ABBI, which allows a user to easily choose the type of scoring for an assessment item and automatically configures the responses and declarations in the QTI for the scoring with the interactions present in the item*
  + *Co-inventor on Pearson's Assessment Item Generation and Scoring patent (Patent No. US 9,454,584)*
  + *Provided group and personal instruction for new developers getting up to speed on ABBI and JavaScript development*
  + *Built user interface for creating and manipulating 'field test' forms*
  + *Integrated the WIRIS MathML editor into ABBI*
  + *Built extensions for DataTables jQuery plugin to allow developers to easily integrate the tool into ABBI keeping ABBI's standard UX and styling, and to provide custom editing functionality*
* Server-side development of ABBI
  + *Maintained ABBI's web server and REST API code, integrating the constantly growing and evolving API provided by the Application Server*
  + *Built process to import items from external sources into ABBI*
  + *Deploy releases to the production web server*
* *Continue to provide troubleshooting assistance, help in designing data structures and efficient algorithms, and encouraged object oriented design patterns*
* *Collaborate with team members both locally and remotely to plan, document and implement solutions. Work to integrate solutions developed remotely with local development efforts*
* *Review code, provide feedback, approve pull requests, help with merge conflicts*
* *Participate in daily standups and Scrums, manage workflow in Jira making sure stories and defects are kept up-to-date and well documented*
* *Assist developers with set up of new development environments, troubleshoot build issues*

**Key Achievement:**  Implemented and helped design the scoring functionality in ABBI, which allows a user to easily choose the type of scoring for an assessment item and automatically configures the responses and declarations in the QTI for the scoring with the interactions present in the item.

###### **Environment:** Java, Play Framework 2, JavaScript, Backbone, Bootstrap, HTML, CSS, JQTI, QTI, XML, XPath, JSON, SBT, Java RMI, NodeJS, git, BitBucket/Stash, GitLab, Grunt, Bower, Yeoman, Jira, REST, Confluence, Linux, bash, ssh, scp, vim, Jenkins CI, AWS, Sublime Text, Beyond Compare, HipChat, Skype, Google Hangouts

**PEARSON AUSTIN, TX Sep 2013 – Jun 2014**

***Contractor through KForce***

***Server-side and Client-side development of Backbone and Play Framework single-page application (ABBI content authoring and banking web application)***

* Server-side development of ABBI
  + *Created Play Framework 2.2 application for serving ABBI’s main web page and implemented the API layer*
  + *Took responsibility for documenting and designing much of the REST API as well as integrating the API with the banking layer of the software*
  + *Developed ‘middleware’ layer responsible for reading and writing JSON that is consumed by the client and converting the JSON to and from valid QTI XML*
  + *Developed the Maven build process, set up the Jenkins build and created an automated deployment process for ABBI*
  + *Provided help and mentoring on development with Java and Play Framework*
* *Client-side development of ABBI*
  + *Created the ‘Expert Mode’ editor to allow direct editing of QTI xml*
  + *Worked on many parts of the user interface’s JavaScript/HTML/CSS codebase*
  + *Integrated much of the client with the server-side REST API using AJAX*
  + *Maintained the Grunt build process for client-side code*
* *Provided troubleshooting assistance, help in designing data structures and efficient algorithms, and encouraged object oriented design patterns*
* *Collaborated with team members both locally and remotely to plan, document and implement solutions. Worked to integrate solutions developed remotely with local development efforts.*
* *Participated in daily standups and Scrums, managed workflow in Rally making sure stories and defects were kept up-to-date and well documented.*

**Key Achievement:** Developed the JSON to QTI middleware layer for ABBI using the JQTI, Jackson, and SAX Java libraries for insuring valid QTI creation and editing.

###### Environment: Java, Play Framework 2, JavaScript, Backbone, Bootstrap, HTML, CSS, JQTI, QTI, XML, XSLT, JSON, Maven, NodeJS, Grunt, Bower, Yeoman, Rally, REST, Confluence, Windows 7, Linux, bash, ssh, scp, vim, Jenkins CI, VMWare, MySQL, MySQL Workbench, Sublime Text, Office 2010, VNC, 7-Zip, Beyond Compare, PowerShell, Skype, Google Hangouts, WebEx

###### CONSUMER TESTING LABORATORIES BENTONVILLE, AR 2005 – Aug 2013

***Systems Analyst***

***Responsible for maintenance and development of legacy systems. Contribute to requirements gathering, design and development of new systems.***

* Developed user interfaces with JavaScript/HTML/CSS for line of business web applications.
  + Created the Inventory Management interface, which allowed users to track samples in CTL’s possession as they moved throughout and in-between the different laboratories.
  + Developed the ‘interlab’ process for the sample administration system, which allowed different laboratories to test distinct parts of the same sample, and ensure that no reports were issued until all laboratories’ tests were complete.
  + Developed the Accounting interface which allowed the accounting department to view daily invoicing totals and create monthly invoice batches in the MAS500 accounting system.
  + Created a ‘supplier business card’ JavaScript control, which allowed users to easily search for a customer’s information and enter all relevant information about a customer by selecting the correct ‘business card.’
  + Researched multiple ‘special character’ issues in the sample administration system, recommended a fix, and made changes to the client-side code to implement the fix. The solution involved removing numerous instances where XML was created manually on the client by using string concatenation, transmitting data from the client to the back end using JSON instead of XML, and giving the back end PHP code the responsibility of creating XML to send to the database.
  + Promoted use of asynchronous programming in JavaScript applications, providing alternatives using callbacks and closures when the solution appeared to need synchronous XHR.
* Designed and implemented a process to mine testing information from hundreds of thousands of Excel spreadsheets.
  + Excel spreadsheets are used to report detailed testing results. The results are entered into arbitrary cell locations in the spreadsheets, the locations of the cells determined by Excel templates drawn up by Regulatory Compliance. There are hundreds of different templates, any of which can change at any time.
  + Wrote two windows forms applications for this process, in C#. The first one is the Excel Mining System (ExMS) which mines data from new worksheets as they are created and existing worksheets as needed. The second application (Excel Definition Editor) allows Regulatory Compliance to define which cells hold what data in the different versions of the templates.
  + Used ADO.NET to send results to SQL Server
  + Used Excel Automation to open each individual worksheet and pull out the requested data.
  + Kept the template definitions in XML files and maintained those files in Subversion. Regulatory Compliance can use the Excel Definition Editor to commit the changes, which are immediately picked up by ExMS.
* Integrated systems with MAS500 accounting system.
  + Created a web forms application (Alpha to MAS Reviewer, or A2M3) with VB.NET for use by accounting to review all testing charges, view summary reports, and create invoice batches in MAS500.
  + Built processes in databases across the globe to export testing charges and transport them to the US for import into A2M3.
  + Designed SQL Server 2005 database and created stored procedures and views to serve as a back end for the A2M3 web application.
* Wrote functional tests for existing and new web applications.
  + Extensively researched and provided a report to management of different functional testing software including Telerik Test Studio, Selenium, Watir, WatiN, QTP and Silk Test.
  + Created functional tests written for Test Studio in C# for new internal and external web applications, and tests for new functionality of existing applications.
  + For running tests as changes were committed to trunk, set up a continuous integration environment running on Hyper-V Server 2012 with a Linux VM running the Jenkins CI server, and three different versions of Windows to run tests.
* Added change control to legacy Alpha5 database systems.
* Developed and supported software used in labs globally.
* Continuously strove to make testing a part of the development process.
* Associate of the Year, Information Systems, 2006

**Key Achievement:** Developed software to integrate accounting’s processes of invoicing and collections into the laboratories’ processes of receiving samples and issuing reports which eliminated many manual tasks, reduced errors, and increased accountability.

###### Environment: Windows XP, 7, 8, Linux, SQL Server 2005, SSMS, SSIS, bcp, dtexec, osql, PHP 5.2, Alpha5, Hyper-V, VMWare, Jenkins CI, Eventum, Trello, Confluence, Apache, IIS, FreeTDS, ODBC, MySQL, MySQL Workbench, Visual Studio 2005/2010/2012, ReSharper 7, NuGet, Zend Server, Zend Studio, PhpStorm, Test Studio, Sublime Text, Office 2003/2007, Visio, TortoiseSVN, AnkhSVN, Sandcastle, JSDuck, RDP, VNC, 7-Zip, Beyond Compare, Java, PowerShell, Chocolatey, NUnit, Jasmine, JSTestDriver, ssh, vim, bash, LinqToSql, FTP, SOAP, REST

###### ROBERT HALF TECHNOLOGY BENTONVILLE, AR 2005

***Contract-to-hire, Consumer Testing Laboratories***

***Provided support to overseas laboratories. Contributed to maintenance and development of legacy systems.***

* Provided troubleshooting assistance, workarounds, and emergency fixes for issues outside normal working hours in the US.

**Key Achievement:** Added an inventory tracking system to the sample administration system which enhanced the company’s ability to hold itself accountable for properly disposing of samples after they were tested.

**Environment:** Windows XP, Alpha5, RDP, VNC, Office 2003, Access

Technical Skills

Operating Systems Linux, Windows

Development Environments IntelliJ Idea, MySQL Workbench, Visual Studio, SSMS

Languages JavaScript/HTML/CSS, Java, C#, PHP, T-SQL, Bash, PowerShell

JavaScript Frameworks JQuery, Backbone, Bootstrap, Underscore, ExtJS

Version Control Git, Subversion

Testing Frameworks Mocha, JUnit, Jasmine, NUnit, Test Studio

# EDUCATION

**Diploma** Northwest Technical Institute, Springdale, AR, 2005, GPA 4.00