Erich Musick, Principal Software Engineer

(630) 930-7240 // mail@erichmusick.com

Summary

Principal Software Engineer with thirteen years' software development experience concentrated on web applications and APIs backed by C#, Java, PHP, SQL, and distributed databases. I'm looking to develop creative solutions that bridge the gap between core application functionality and front end in pursuit of optimal user experiences. I desire a highly technical position with like-minded coworkers that also allows for mentoring of junior developers and offers continual learning opportunities. I am looking to stay in the Seattle, WA area.

Experience

Microsoft Corporation (February 2013 – Current)

Principal Software Engineer, *Education Engineering (January 2017 – Current)*
- Articulated and evaluated architectural options for rewriting the EDU Assignments Service.
- Networked with other leaders of O365 services to leverage their expertise to inform our decisions.
- Led team in rewrite of Assignments Service in four months to support Microsoft Teams for EDU.
- Implemented storage layer in C# to enforce authorization rules and abstract underlying distributed storage platform.

Senior Software Engineer, *Exchange / Groups (February 2013 – January 2017)*
Developed features for the O365 Groups platform within the Exchange Server codebase.
- Built both front end experiences within Outlook Web App (OWA) and distributed backend services.
- Quickly comprehended and developed solutions across different components in Microsoft Exchange Server: Café, AD Driver (Active Directory abstraction layer), Exchange Web Services (EWS), OWA, Exchange Admin Center (EAC), PowerShell cmdlets.
- Taught Exchange Server a new abstraction: Group with a mailbox. Systematically interrogated the codebase to change the foundational assumption that only Users can have a mailbox.
- Negotiated with partner teams to achieve shared goals.
- Pursued high-quality code through rigorous code reviews.
- Advocated for thorough unit testing across the team; coverage increased from 0.8% to 40% over three months.
- Advised customers at the Microsoft Ignite 2016 conference.
- Nominated for and participated in Microsoft's Lab One High Performer program, FY16, FY17.
- Promoted three times in four years: from level 62 in February 2013 to 65 in January 2017.

FIS Global, *formerly Metavante Corporation* (June 2007 – January 2013)

Application Architect / Senior Programmer Analyst, *Electronic Payments Team (February 2011 – January 2013)*
- Designed new version of the web services contract (WSDL) to accommodate a greater breadth of flexibility in funding and remittance of electronic bill payment and person-to-person transactions.
- Defined high-level application architecture changes required to support new person-to-person product offering. Worked closely with project teams to share direction and ensure adherence to the approach.
- Constructed core application functionality in Java, reviewed team's code changes, and expeditiously debugged and resolved critical pre-production defects blocking QA testing.
- Developed suite of automated web service tests with Soap UI to validate application behavior and ensure stability across multiple test environments. Upon implementation, eliminated downtime in the QA environments resulting from bad code.
- Proposed and implemented changes to improve developer efficiency and direct team toward continuous integration.
- Managed team of up to five interns and junior developers.
- Led code review sessions with onshore and offshore teams; realized improvement in quality within a month of starting.
- Participated in technical design reviews to ensure consistently high-quality solutions across the group.
- Cooperated with both internal and external clients to define and achieve mutually desirable goals.

Software Engineer I/II, *Electronic Payments Team (June 2007 – February 2011)*
- Led small to medium sized development efforts of both onshore and offshore resources.
- Collaborated on architecture of next-generation Bill Payment UI, featuring a modular and financial institution-customizable design. Implemented several UI components and researched and application performance issues specific to older web browsers.
  Technologies used: C#, ASP.net, JavaScript, jQuery, CSS, XML, WCF
- Architected and coded Web 2.0 enhancements to existing Bill Payment application. New interface organizes pertinent bill payment data in a single screen, allowing users to quickly pay bills on time with minimal clicks. Implemented UI for 1200+ financial institutions.
  Technologies used: Java, JavaScript, jQuery, AJAX, XHTML, CSS, XML, XSLT, JSON.

- Designed and developed web service framework in Java to provide a unified SOAP-based interface to disparate bill payment applications. Technologies used: Java, Apache Axis.
- Researched and advised resolution for production issues to help guarantee client and end-user satisfaction.
- Contributed to company-wide JavaScript and Browser Technologies Forum.

Software Engineer / Web Developer Consultant (1997 – Current)
After designing first web site at age 12, began part-time freelance development of small business, and non-profit web sites.
- In 2016, moved web site to a Digital Ocean droplet, configured through Ansible.
- In 2015, developed responsive web site layout for online garage doors parts retailer.
- In 2010, developed custom shopping cart in PHP and MySQL to facilitate orders for online garage doors parts retailer and to coalesce disparate systems through integration with both PayPal and QuickBooks. Client currently processes an average of 30 orders daily and realized doubled monthly revenues year over year in first two months of using the cart.
- Responsible for UX design, software architecture, development, testing, and deployment

Junior Software Developer at **Project-Based Learning Systems** (February 2006 – March 2007)
- Designed and implemented conceptualized functionality using Java, Struts, PostgreSQL, AJAX, JavaScript, CSS, and XHTML.

Web Assistant at **Milwaukee School of Engineering** (March 30, 2005 – May 2006)
- Added new and updated existing pages on school's Web site.
- Designed and coordinated implementation of new design for Business Excellence Consortium Web site.
- Created online form to simplify resident parking applications for Public Safety Department.
- Suggested and implemented numerous other improvements.
- Technologies used: HTML, CSS, JavaScript, PHP, Microsoft Access to connect to SQL Server through ODBC.

Student Web Developer at **West Chicago Community High School** (2003)
- Established message board and web site for the American Government Class as a replacement for Blackboard.com.
- Designed and developed Online Grade Book, utilizing Perl and MySQL, for use by any teacher at the school.
- Consulted on construction of user-friendly Content Management System

Education

B.S. in Software Engineering from **Milwaukee School of Engineering,** Major GPA: 4.00, Overall GPA: 3.98**.**
- Emphasis in Networking; German Studies Minor.
- Senior Project: Self-guided handheld multimedia tour system for MSOE's *Man at Work* art museum.
  Technologies used: C#, HTML, XML, XSLT

Valedictorian at **West Chicago Community High School,** Cumulative GPA: 4.00 out of a possible 4.00.