

Patrick Rogan

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Personal Summary

Senior Developer, Systems Engineer and Information Architect with over 10 years of experience working with business stakeholders to design, develop, and maintain sophisticated data driven applications. Applies human factors knowledge and modern user interface design standards to implement highly usable, intuitive and eloquent applications with rich user interfaces that regularly exceed expectations. Utilizes proven systems design methodologies and industry standard best practices to create maintainable and reusable system architectures to implement complex business processes. Demonstrated ability to understand and communicate technical constraints, business drivers, and end-user needs. Internationally recognized as a superior technical trainer and accomplished documentation author with strong graphic design skills.

Technical Expertise

Programming Languages

Java, Perl, C, C++, JavaScript (JScript), Bash, Korn shell, VB Script, Scheme, Lisp, PHP, Script-Fu, ActionScript, SQL, PL/SQL, Transact-SQL, HTML, DHTML, XML, XSLT, CSS

Frameworks, APIs and Libraries

J2EE, JSP, EJB, Struts, Spring, Jakarta Commons, CPAN, Castor, JFreeChart, eXtremeTable/jmesa, CGI, ModPerl, iText, ODBC, JDBC, Perl DBI, Axis, JAX-RPC, Mootools, jQuery, Flex, Mate, log4j, SOAP, PKCS

Other Software Systems

CVS, Perforce, VSS, PVCS, Subversion (SVN), Big Brother, Larrd, LDAP, MS Office, Visio, Graphviz, Photoshop, GIMP, Clearspace/Jive SBS, Google Analytics, B2B/Web Services, AJAX

Operating Systems, Servers and Database Environments

Digital Unix (DUX, Tru64), AIX, Solaris, Linux, Windows, Mac OS X, Apache, Tomcat, WebSphere Application Server (WAS), Wowza Media Server, Oracle 8/9/10, Sybase

IDEs

Eclipse, Aptana, Flex Builder, WebSphere Application Developer (WSAD), Rational Application Developer (RAD), SQL Navigator, Toad, Embarcadero RapidSQL client, Brio, MS Access, Emacs

Professional Experience

He Flips Productions, LLC

1/2010 - current

Sr. Software Engineer

Created functional prototypes for several web applications to showcase a proprietary shared audience experience technology that I also helped design and implement. The front end User Interfaces are written in Flex/ActionScript, with custom Java modules running on the Wowza Media Server back end. Other technologies include:

- » RPC calls over RTMP connections between client and server
- » Mate framework to provide dependency injection, event autowiring, and singleton management in Flex
- » Custom Flex UI control extensions to support additional attributes and functionality
- » Live streaming video upload and broadcast
- » Spring framework to provide a database connectivity layer on the server side

TreeTop Technologies / Fidelity Charitable Gift Fund

3/2006 - 12/2009

Sr. Software Engineer (Contractor)

Overview

- » Maintained and enhanced a complex J2EE system including several internal and external web applications.
- » Utilized development and architecture expertise on both front end UI and back end server components.
- » Architected and executed an incremental simplification and modernization of the application architecture.
- » Designed several reusable libraries to perform core functionality such as handling HTTP connections and SOAP messages.
- » Discovered opportunities to integrate and extend third party toolkits such as JFreeChart and eXtremeTable.
- » Performed database work such as extending the data model and automating the creation of SQL data loading scripts.
- » Collaborated with project sponsors and stake-holders to establish functionality, user experience guidelines, and application design.
- » Wrote documentation and presentations for a variety of audiences.
- » Championed use of the Clearspace collaboration portal as a low-barrier documentation repository.
- » Provided unique insight to quickly and accurately analyze and fix a wide variety of production and architectural issues.
- » Assisted the Production Support team through collaboration and by occasionally offloading work from them.

Major Project Work

- » Primary analyst and developer of a site-wide redesign of the public CGF Giving Account® web application.
 - » Collaborated with the Director of Website Management to convert mockups into actionable CSS and HTML artifacts.
 - » Designed, documented, and implemented new “look & feel” standards, including Federal Section 508 accessibility compliance.
- » Ported an existing desktop application to a thin-client web version retaining its highly dynamic UI while improving ease-of-use.
 - » Extensive use of webservices to obtain dynamic field list, access level, and validation rule meta-data for each screen.
 - » Implemented using my personal MVC design methodology to provide the required dynamic functionality.
 - » Minor effort was required to adapt to a back-end system upgrade several years later due to forward thinking design decisions.
- » Integrated an external EFT/ACH system (CyberSource) using secure webservices (SSL + PKCS).
 - » Successfully handled over \$3 Million in transactions in the first 2 weeks.
- » Developed a webservice client to search and display search results on the CGF public website.
 - » Enforcing a DAO pattern minimized development effort when the back-end search engine was later replaced.
- » Created a new J2EE/Struts web application allowing CGF account holders to create accounts for non-members.
 - » Collaborated with the Information Security Officer to identify and address challenges and concerns from opening business functionality to non-members.
- » Performed a successful but difficult migration of the web applications from the WAS 5 application server to WAS 6 (and RAD 7).
 - » Hurdles included issues with RAD’s EJB migration tool, compatibility issues between Clearcase and RAD, and other minor but long-standing issues in the code that required addressing in order to run on WAS 6.
 - » Worked with IBM support to get several of the issues officially acknowledged and patched in RAD maintenance updates.
 - » Performed the migration in a fraction of the time that it took a previous team to attempt, and eventually abandon, the task.
- » Developed a Service-Oriented (SOA) webservice endpoint to provide CGF account data for display in a financial dashboard client used by financial advisors company wide.
 - » This allowed clients’ CGF account information to be listed along side their core Fidelity accounts while also promoting awareness of the CGF.
 - » Implemented the webservice using a bottom-up approach with Axis and a new streamlined Java service component.
 - » Reused existing authentication routines, while utilizing new optimized SQL queries to meet timing requirements in the SLA.

Awarded for

- » Excellence in assisting and mentoring fellow developers and, on occasion, external partners and their clients.
- » Performing cross-functional analysis, design, and development duties when required to ensure successful project delivery.
- » Encouraging the use of agile methodology concepts, thereby increasing collaboration and productivity across groups.
- » Creating an interactive graph of the application workflows (with a corresponding 12 foot poster) that assisted developers with the maintenance of the application while also providing unique insights into the nuances of the system.
 - » Used Graphviz and a set of custom Perl and shell scripts to introspect the code.

MFS Investment Management**2004 - 2006***Sr. Financial Software Engineer*

Developed several large intranet applications and support functionalities such as authentication and entitlement systems. Worked with Business Analysts and directly with customers to get first-hand feedback, understand and interpret business and customer needs, and played a major role guiding the design of the systems to meet those needs. Created modular, reusable, and maintainable code allowing new web projects with full-featured interfaces to be rapidly developed with minimal effort. Used experience and skills as a web application developer and user interface designer to exceed expected results in both usability and functionality of systems developed. Assisted other developers and disseminated learned knowledge of Struts and other web technologies to members of the team, thereby shortening their learning curve while championing the use of best practices.

- » Primary contributor to a high profile web-based intranet information management system utilizing J2EE, Struts, JSP and Sybase to consolidate several company-wide legacy systems into a centralized information portal.
- » Created a fine-grained database driven security system to dynamically limit access at the field level for arbitrary user groups due to the company wide audience of the information management system.
- » Created a library of common UI components for reuse in other applications, shortening future development time on those projects.
- » Created a methodology for maximizing Struts’ basic support for an event-driven architecture, using Dispatch Actions, thereby achieving highly flexible navigation pattern while staying within the Struts framework.
- » Created a streamlined inventory system to provide automated budget forecasting of market data products and service entitlements.
 - » Reused front end and controller components and design methodology from the previous project to facilitate the
 - » This project was written in weeks instead of months thanks to my contributions.
- » Contributed to the creation of a standard company-wide login servlet for J2EE applications to ease adoption of centralized LDAP based authentication.
 - » Was later migrated to Active Directory without a major redesign effort because my original code was designed to be flexible.
- » Performed operational tasks such as creating table schemas for Sybase databases, and “day one” data load/migration scripts.

North American Expositions Co.**2003***IT Consultant*

- » Restored the functionality of a DLT tape backup unit used for nightly backups.
- » Upgraded a domain controller from Windows NT to Windows 2000 and reconfigured it for optimal performance.
- » Made recommendations and purchased needed hardware and software.
- » Evaluated, purchased, and installed Norton Corporate anti-virus software on all desktop machines.
- » Made recommendations on security issues such as remote desktop, Internet usage at work, and wireless networks.
- » Created documentation on common maintenance tasks to ensure continued operations.

Lycos**1996 - 2002***Sr. Systems Engineer*

Key member of team primarily responsible for creating, enhancing, and maintaining the Enterprise Reporting System. Instrumental in collecting raw usage data from thousands of web servers worldwide, processing that data into a multi terabyte data warehouse, and providing comprehensive access to that information for both internal and external clients. Successfully planned and executed several major information architecture projects as the primary developer.

Major Project Work

- » Conceptualized and developed a web application during my first year to give both internal and external Product Managers and Ad Managers direct access to the reporting system data.
 - » Implemented a familiar and easy to use "wizard" like interface to define report parameters.
 - » The flexible design allowed the code to easily adapt to a complete replacement of the back-end number crunching system.
 - » Became a selling point when Lycos began licensing its name and its software to other companies world-wide.
- » Designed and developed a database driven web-based inventory/asset management system.
 - » Contained flexible and advanced search, visualization, and data entry functionality.
 - » Capitalized upon the architectural groundwork from the previous project, creating a full-featured application development environment foundation.
- » Created a next-generation web based reporting interface for a new data warehouse environment.
 - » Built upon design work from previous incarnations as well as feedback and usability studies.
 - » Improved the presentation and usability of the data warehouse reporting system.
 - » Became an extensible portal for integrating heterogeneous reporting tools from across the Lycos worldwide network.
- » Consulted on a project to create "executive dashboards" of important business metrics using Brio.
 - » Applied my knowledge and experience of user interface design and computer usability.
 - » Found solutions for several technical issues including long load times, and cross-system authentication.

International Support and Training

- » Traveled to Tokyo, Toronto, and Germany on multiple occasions for Lycos-Japan, Bell Sympatico, and Bertelsmann, respectively, to personally install reporting systems, including components that I developed.
- » Trained those companies' engineers, directors, and business managers on the maintenance and operation of the reporting system.
- » Performed additional training of engineers from Bertelsmann, Lycos-Singapore, and Lycos-Japan locally in the US.
- » Assisted international partners with the daily operations of their reporting system installations during initial training periods.
- » Provided 24/7 telephone support for international partners in crisis situations.
- » Proactively assumed the daily operations of one partner's reporting system to correct operational issues and ensure 100% uptime.

Development

- » Lead developer on several major high profile projects, listed above.
- » Developed and maintained multiple generations of the reporting subsystem for collecting log data from web servers using a proven methodology that scaled to handle thousands of downloads, daily, in a heterogeneous worldwide network.
- » Analyzed and repaired security holes in our proprietary log file transfer server.
- » Created specialized data visualization tools for various internal customers using Brio.
- » Wrote and maintained essential utilities used by both the Reporting Group and by other departments.
- » Identified the need for, and developed, enhanced monitoring of the reporting system using open source tools (Big Brother, Larrrd.)
- » Developed a low-level module for the Apache web server to allow single-sign-on authentication across multiple web servers.
- » Contributed to the design and enhancement of reporting system components developed by other members of the team.

Maintenance

- » Monitored, troubleshot and automated the collection of hundreds of Gigabytes of raw usage data on an hourly basis.
- » Directly managed and maintained the access of the reporting system to outside customers, such as Microsoft, Sprint, AT&T.
- » Developed and administered mission critical applications, running on Apache and Netscape Enterprise web servers.
- » Instrumental in integrating an externally designed data warehouse system into the existing reporting environment.
- » Integrated multiple additional reporting systems, worldwide, into the new data warehouse.

- » Worked directly with end users to answer questions, resolve issues, and gather requirements.
- » Interfaced with other departments to obtain resolution on external technical issues.
- » Administered several Digital AlphaServer 8400 servers as well as Linux, Windows and Macintosh systems.
- » Performed raw data integrity audits and automated the validation of daily reports.
- » Created detailed documentation of the Reporting Group's products, procedures, and requirements for multiple audiences.
- » Actively maintained several documentation web servers, providing an interface for accessing documentation 24/7.

Education

Carnegie Mellon University

Bachelor of Science in CS