Kris Zaragoza

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Profile

Software architect and leader with experience in delivering middleware, web based software, and software as a service. Particularly interested in high volume systems and the scalability challenges they present. Direct experience with aligning technical goals with the business, hardware selection, network design, OS tuning, software application architecture, design, and implementation. Thrilled at the prospect of a high impact role in a small organization.

Skills

Programming	Python, Ruby, Java, Objective-C, C♯, C/C++, JavaScript, ActionScript, T-SQL (Microsoft SQL Server)
Tools and Frameworks	iOS Development, Solr, Message Queuing, Tomcat, JBoss Rules, Hibernate, Hudson, MS Visual Studio, MS Team Foundation Server, MS SQL Server, MySQL, Emacs, GNU tools, Subversion, Git, Mercurial, Jenkins
Web Development	Rails, Django, jQuery, ASP.NET, Spring MVC, HTML, Flex, Flash, CGI scripts
System Administration	Linux, Windows Server NT/2000/2003/2008, Solaris

Experience

2013–Present **Director of Engineering**, *WorldOne, Inc.*, Boston, MA.

2012–2013 **Senior Architect**, *WorldOne, Inc.*, Boston, MA.

WorldOne is the market leader in global health care data collection. We give our clients access to a network of over 1.8 million global physician and medical providers. WorldOne also runs Sermo, the largest social network for physicians.

- Managed ten engineers across two teams working on new products and platform features. Provided guidance and mentorship both within my teams and across the entire engineering organization.
- Managed a team of engineers focused on platform unification, internationalization, and continued feature development. Converted a US-only social network application into an single, internationalized platform for all of our members and survey panelists. Unified the member user experience from three wildly different systems to a single, easy-to-use plaform that will become the basis for further feature development.
- Led the integration effort to unify survey panel and social network membership data to gain a holistic view of our members. Detected and eliminated tens of thousands of duplicates despite substantial name variations and data errors.

2012–2012 **Senior Software Engineer**, *FactSet Research Systems*, Boston, MA.

2010–2012 **Senior Architect**, *StreetAccount*, Boston, MA.

FactSet consolidates all the tools needed by investors to monitor global markets, public and private companies, and equity and fixed income portfolios. StreetAccount is a news service that provides real-time equity market intelligence for institutional investors. FactSet acquired StreetAccount in 2012.

- Designed, developed, and supported iOS app for accessing the StreetAccount systems. Started with an iPad only version, and expanded it to a universal app for iPad, iPhone, and iPod Touch.
- Replaced a poorly performing third-party search engine with a custom crawler and Solr search index. Improved indexing time for new files from over a day to under a second.
- Provided architectural guidance to software developers. Aided in algorithm selection, proper implementation choices, and pointed out needs for operation deployment of production systems.
- Led performance optimization efforts. Established a stress testing environment, built automated stress tests, and assisted developers in addressing performance issues.
- Investigated and resolved numerous performance and stability problems with the network and server infrastructure. Established discipline around log analysis and monitoring. Brought an unstable infrastructure to over 99.95% availability.

2008–2011 **Principal Engineer/Architect**, *Affinnova*, Waltham, MA.

Affinnova is the global leader in optimization technology for marketing and innovation, using genetic algorithms to evolve products, marketing messages, and designs based on consumer choice so that the fittest concepts can be quickly identified.

- Built next-generation design authoring tool for partners to design concept cards, enter content, enter translations, and review survey analysis results.
- Designed and built WYSIWYG concept card editor in Flex so that market research staff could design and build concept cards for testing without support from designers.
- Introduced Spring and Hibernate to speed development of Java back-end.
- Established software development best practices, including selection of defect and task tracking tools, automated builds with Hudson, and code reviews.
- Migrated source control from Subversion to Mercurial, and finally to Git. Provided training and support for engineers and helped troubleshoot integration and merge problems.
- Consulted with IT staff on configuration, management, and troubleshooting of production environment.

2007–2008 **V.P. Engineering**, *Data Technology Group*, Cambridge, MA.

Data Technology Group, now part of Thomson Reuters, provided business tax preparation and automation tools through its Tax Dimensions line of products.

- Developed hosted, web based tax provision application using Python and Django with MySQL for storage. Used Git to manage source code for disconnected development. Deployed production systems on Linux.
- Built IRS and Massachusetts eFile transmission system for reliable, secure delivery of electronic corporate tax return filings using Java and Spring MVC running on Tomcat with MySQL for data storage.
- Deployed and managed production Linux servers running eFile transmission system. Configured Apache, Tomcat, and Postfix to provide necessary services. Set up automated monitoring with Monit. Set up Cfengine to automate system configuration and software deployments. Secured all server access via SSH.
- Configured and deployed Subversion to manage application source and server configuration information.
- Managed development teams for tax provision and tax return preparation desktop products.
- Established software development best practices, including defect and task tracking with Trac, automated builds with CruiseControl.NET, and a separate QA practice with dedicated QA engineer. Developed product installer with NSIS.
- Worked with executive staff to determine strategic product direction.

2000–2007 **Senior Architect**, *GetConnected*, Boston, MA.

GetConnected was the premier provider of comparison shopping and transaction processing systems for retailers selling telecommunications services. It built branded shopping sites, and APIs to easily allow purchase of services from telephone, cable, satellite, and other service providers.

- Grew along with the company, first as an individual contributor, then as Manager of the Tools and Architecture team, and finally as the Senior Architect.
- Established architectural standards and development policy. Performed design and code reviews to ensure compliance with standards and ensure sound design and implementation. Assisted developers in selecting design approaches, data models, and appropriate algorithms. Helped developers resolve difficult technical problems, including finding the causes of defects and performance bottlenecks. Investigated and reviewed technologies to determine applicability to our systems.
- Led architecture and design efforts for building third generation platform using Java and Linux. Evaluated technologies, established standards, and provided architectural framework for a team of over 30 engineers. Mentored engineers, and provided assistance in overcoming technical challenges.
- Led performance improvement efforts focused on readiness for the holiday shopping season. Three-tiered architecture, along with performance improvements, allowed systems to handle an order of magnitude more orders than any previous holiday season.
- Led the transition from a limited, two-tiered, client/server architecture to a scalable, three-tiered, services-based architecture. Established standards, development policy, web service interface definitions (XSD, WSDL). Designed and implemented web services, asynchronous logging system, Windows services (daemons), and tools in C#. Instructed engineers in properly writing multi-threaded code. Supervised engineering team in implementing and delivering the system.

- Instructed and mentored members of the engineering staff in new technologies and languages. Provided Java, Python, and Perl instruction to engineers working on various projects. Mentored junior members of the engineering team in general problem analysis, using advanced SQL queries, proper selection of technologies and algorithms, and proper software development methodologies.
- Designed and implemented a dynamic, multi-threaded, scalable, data-driven order processing and communication system. Led the team that built the system using Java, Python, C++, and various XML technologies. The system communicated with external parties, particularly service providers and fulfillment agents, using XML documents, created by XSLT stylesheets, processed by Python scripts, and transmitted over HTTP. Designed the system for dynamic extensibility of functionality, high reliability, and horizontal scalability to handle large order processing loads. The system was mostly written in Java, and wrapped in a C++ layer allowing it to run as a service on Windows 2000 Advanced Server using SQL Server 2000 for its configuration information.
- Designed database schema and stored procedures in Microsoft SQL Server for numerous projects. Implemented and optimized stored procedures to provide applications access to service plan and order data. Used COM automation to access special-purpose COM objects from Transact SQL to provide data encryption services.
- Analyzed and optimized Transact SQL code for live data access from public web sites as well as for reporting. Used SQL Server Profiler and other tools to analyze the time spent in various queries and portions of code. Sped up one reporting routine from over eight hours to less than one minute.

1996–2000 **Senior Software Engineer**, *Lotus Development*, Cambridge, MA.

Lotus, a division of IBM, provides software for communication and collaboration in and across organizations. It is famous for its Lotus 1-2-3 spreadsheet, and the Notes and Domino collaboration tools.

- Continued development of Notes based document management product. Worked with management to refine feature requirements in accordance with user requests. Wrote design documentation and presented designs for management review. Implemented designs using LotusScript, C, C++, MFC, and the Notes API. Assured continued portability of code through design and code reviews, and continual education of the development staff on platform differences and cross-platform development techniques.
- Organized and automated a manual, labor-intensive build process using Make, shell scripts, batch files, and various custom tools. Developed tools for Notes database manipulation (using C, C++, and the Notes API) to eliminate manual processing. Reduced time to post a build from a full day to approximately two hours. Elimination of most manual steps resulted in high-quality, reproducible builds.
- Instructed QA and development engineers in basic Unix system usage and application-specific commands.
- Organized and administered Unix workstations for both development and QA. Set up accounts, managed disk usage and network access to over a dozen shared systems running AIX, Solaris, and Linux.
- Developed and delivered compatibility update to document management product. Performed all development work in C, C++, LotusScript, and InstallShield. Established project plan and schedule, directed QA efforts, and coordinated with management for product delivery.
- Ported new Lotus Notes based document management product to AIX and Solaris, and guided other development teams in porting to OS/400 and OS/390. Worked around LotusScript limitations to build a portable interface to OS-specific calls.

1995–1996 **Associate Member Technical Staff**, *Tasc*, Reading, MA.

TASC, now part of Northrop Grumman, provides engineering and IT services for intelligence, military and other government operations.

- Developed synthetic imagery generation application for US military training using 2D image composition techniques and OpenGL for 3D rendering.
- Researched and selected user interface development tools, and led the design and implementation of the application user interface for Irix and Solaris systems. Learned, used, and then instructed the team in the use of Galaxy Application Environment, resulting in reduced time and cost in implementing the user interface.
- Instructed many members of the team in C++ and object-oriented software development techniques, and reviewed code to catch serious errors early in the development process.

Education

B.S. Computer Science, *Rensselaer Polytechnic Institute*, Troy, NY.