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Objective

A hands-on technology leadership position building innovative products and services

Skills

- Mobile product development experience, including building consumer products for the Apple App Store
- Cloud computing experience deploying production apps to AWS, Heroku and Google App Engine
- 21+ years of experience building online services using a variety of tools and platforms
- Experienced agile software development practitioner (Scrum, XP) able to coach teams in agile methods
- Deep web development experience with a wide variety of JavaScript, Java, PHP, and Python tools, and both front and back end web applications
- Linux expert since 1994, with a focus on administering Red Hat distributions, from Red Hat 4 to Red Hat Enterprise Linux 6
- Excellent verbal and written communications skills, including public speaking, proposal writing, and presentation skills
- Serial entrepreneur who has started multiple companies and participated in multiple M&A activities

- Languages: C, C++, C#, Objective C, Java, Javascript, Ruby, PHP, Python, Perl, bash, Visual Basic, SQL, XHTML, and CSS
- Databases: PostgreSQL, MySQL, Redis, Microsoft SQL Server, Oracle, SQLite, Microsoft Access, DBase, Hibernate
- Tools: New Relic, GNU Make, Rake, Vagrant, Chef, Ansible, Puppet, Selenium, Watir, Apache Ant, Apache Maven, Git, Subversion, CVS, JIRA, Jenkins, CruiseControl, CruiseControl.NET, Nant, MSBuild, RPM, JUnit, Nullsoft NSIS, UNIX shell commands (sed, awk, cut, etc.)
- Platforms: iOS, Amazon Web Services (EC2, S3, SQS, SNS, CodeDeploy, AutoScaling Groups, ELB, CloudFormation, IAM), Google App Engine, Linux, Mac OS, Windows, Node.JS, Java/J2EE (Tomcat and JBoss), Drupal, WordPress, Facebook, CGI/HTTP, wxWidgets (cross-platform)
- Highly experienced with mobile development, cloud computing, web development, public key authentication, content management systems, design patterns, database design, OOP, internationalization, continuous integration, and application security
- Software engineering skills: estimation, agile project management, unit testing, automated functional testing, UML modeling, configuration management, version control, defect tracking, release engineering, and packaging
- System administration skills: virtualization, iSCSI, security, firewalls, SELinux, Internet services (httpd, mod_ssl, mod_nss, DNS, LDAP, mail), routing (IPSec VPNs, OSPF, GRE), monitoring (Nagios, MRTG, apcupsd, tcpdump), backup (Bacula, tar)
- Broad experience with operating systems: Microsoft Windows (3.0-7), Linux (Red Hat, CentOS, Fedora, Slackware, Ubuntu), Mac OS X, Solaris, MS-DOS, Netware, BSD UNIX

Publications & Speaking Engagements

- "Recovery of RAID and LVM2 Volumes". Linux Journal, June 2006: 52-56.
- "Real-World SELinux". Linux Journal, July 2007: 84-88.
- "Enabling Web Apps For DoD Security via PKI/CAC Enablement (Forge.mil)". Mil-OSS WG1, August 2009: http://www.mil-oss.org/
- "DoD's forge.mil: Collaborating on Software Development within DoD". NASA Open Source Summit, March 2011: http://www.nasa.gov/open/source/
- "Drupal Inside the Walled Garden: Successes and Challenges at DHS". Mil-OSS WG3, August 2011: http://www.mil-oss.org/wg3-overview/
- "Cloud Back Ends: Pick your Poison". MoDevDC Mobile Back End Technologies, October 2011: http://www.meetup.com/modevdc/events/35031082/

Experience

Principal Architect, Modus Create (Government Software Integrator, Arlington, VA) August 2012-Present
Primary Functions: Software Architect, Executive

- Originally joined company as COO and managed growth of company as it tripled in size from 2012-2014, handling recruiting, contracts, and human resources, while simultaneously delivering services to clients
- Opened multiple key accounts with initial analysis consulting engagements that lead to much larger delivery engagements

- Designed templates for repeatable engineering deliverables that have been key to winning many millions of dollars in new business
- Co-authored *Kickstart Workbook* for agile/lean project planning
- Built and lead DevOps practice, hiring key staff and leading multiple performance remediation engagements using New Relic as a measurement tool to drive 10-40x performance improvements
- Acted as Principal Architect of many different product development efforts for both startups and Fortune 100 clients
- Deployed applications to AWS using AutoScaling groups, CodeDeploy, and related technologies for multiple clients

Senior Architect, Blackstone Technology Group (Government Software Integrator, Arlington, VA) July 2011-August 2012

Primary Functions: Software Architect, Thought Leadership

- Contributed to bid & proposal efforts resulting in over $1 million in new contracts for software development (Drupal) and maintenance (J2EE) services
- Lead project to migrate the USDA FNS web site from static HTML maintained with FrontPage to Drupal 7, pushing agile software development practices into the USDA.
- Pioneered use of Vagrant and Chef to virtualize local development environments that can be instantiated on Amazon EC2 easily for shared development, testing, and production purposes
- Used Ruby to automate functional testing with the Cucumber and Selenium Webdriver frameworks
- Devised build automation using Rake to package Drupal as RPM files for installation into government production networks
- Performed R&D on integrating Drupal and Alfresco using CMIS
- As part of the Office of the CTO, lead efforts to migrate internal systems to Amazon Web Services and to bring better internal collaboration tools to Blackstone developers
- Advised Blackstone on building strategic vendor relationships with Amazon and Acquia
- Lead Thought Leadership efforts in the company by attending and speaking at meetups, hackathon events, and workshops.
- Mentored more junior staff on DevOps principles, including driving the use of virtualization and git to create repeatable local development environments

Director, Technology, Three Pillar Global, Inc (Computer Software Industry, Fairfax, VA) August 2008-July 2011

Primary Functions: Mobile Software Developer, Senior Consultant, Systems Architect

- Acted as the initial lead consultant on strategic engagements, leading to recurring long-term revenue for the company, helping it grow from 8 people to more than 150 people, distributed across 4 continents.
- Developed the PBS Kids Video Player for the iPad, focusing on animation (iOS, Objective C, cocos2d game framework)
- Worked on the initial agile story plan for the Webby-award winning PBS iPad Video Player (#1 in the App Store when released, also an Apple pick-of-the-week)
- Developed the CARFAX Dealer application for iOS, focusing on bar code scanning and UI fine tuning (iOS, Objective C, ZBar bar code library)
- Refactored Mobile Insight iPhone application to ready it for the App Store
- Developed multiple R&D prototypes for PBS, including Bento (a django-cms driven CMS platform) and an Amazon EC2-hosted video transcoding platform with a RESTful API, using Python, Django, boto, and django-piston.
- Developed multiple desktop software products for the Center for Applied Linguistics that built on a common C++ code base for language assessment purposes. Software included support for Arabic and Chinese languages. Coached a series of offshore developers on C++ and wxWidgets in order to sustain development and maintenance responsibility for the code base. Introduced continuous integration using Hudson on Windows in Amazon EC2 to build C++ code.
- Re-architected a legacy event registration and housing reservation system for J. Spargo, consolidating dozens of SQL Server databases into a single database using automated schema evolution techniques.
- Performed strategic database and systems architecture analysis engagements for Millennial Media, N.E.W., and Marshfield Associates, providing them with a basis for making product management decisions on key legacy systems
- Led Java refactoring effort at Conservation International for multiple custom Java-based systems, using GWT, Servlets, JSP, Restlets, Spring, Spring MVC, and Hibernate. Introduced continuous integration with Hudson.
- Acted as the initial technical architect of DISA's Forge.mil system, designing the client-certificate-based authenication system. Extended CollabNet's TeamForge ALM platform to support both hardware tokens and software certificates for authentication at the Apache module layer. Created modified Subversion clients that supported hardware crypto tokens. Hardened software stack to meet DoD security requirements. Technologies used included: Python, Apache modules, OpenSSL, Java crypto API, JBoss JAAS, Red Hat Enterprise Linux.
- Wrote VendorPoint risk management software for Fortrex, using C#, ASP.NET 3.5, NHibernate, and LINQ.

- Coached distributed teams in agile methods, leading multiple projects toward successful conclusions
- Acted as mentor to junior and intermediate developers
- Led Thought Leadership initiative to encourage consultants to grow professionally by blogging and attending and speaking at technology events

Managing Partner, PKR Internet, LLC (Computer Software Industry, Arlington, VA) May 2001-July 2008

Primary Functions: Software Developer, Systems Engineer, Business Manager

- Developed and managed an enterprise web application for Morgan Stanley Investment Management , a mixed public and private online service for thousands of financial advisors from around the globe, using J2EE, Freemarker, PostgreSQL, and Linux
- Wrote software that handled multiple languages, including both Western languages and Arabic
- Developed the Computerized Oral Proficiency Instrument software for the Center for Applied Linguistics, using a Windows multimedia development tool chain assembled from open source components: minGW C++, MSYS, wxWidgets, libsndfile, portaudio, and libspeex
- Developed and published Taskjitsu, Open Source web-based professional services automation software that tracks both tasks and time
- Developed multiple online services requiring PayPal payment gateway integration
- Provided training both to staff and customers on a consulting basis on software development practices and Linux system administration
- Provisioned and managed virtual hosting Internet e-mail systems, using both Sendmail and Postfix, with SpamAssassin, ClamAV, amavisd-new, dovecot, OpenLDAP, procmail, and gnarwl in supporting roles
- Coordinated actions of distributed development team working from 5 locations on 2 continents
- Handled all accounting, human resources, contracting, and business management functions for staff of 6 people

Chief Technology Officer, Microstate Corp. (Computer Software Industry, Dulles, VA) July 1997 – May 2001

Primary Functions: Software Developer, System Administrator, R&D Lead, Development Manager

- Developed web projects for Morgan Stanley, the Bermuda Stock Exchange, and other commercial companies
- Acted as co-architect of an Open Source application server written in Java, Microstate Hamilton
- Performed research and development in application servers, e-commerce software, and content management
- Drove adoption of Java, Linux, version control, estimation, design patterns, and XP
- Designed translation document exchange protocol using XML and HTTP
- Recruited, trained, and managed development team of 9 people

Founder and President, The Obscure Organization (Non-profit, Arlington, VA) April 1995 – Present

Primary Functions: Executive Management, Educator, System Administrator, Community Builder

- Founded 501(c)(3) non-profit organization dedicated to promoting creativity and community through technology
- Provisioned free Internet services using Linux for non-commercial use by individuals and non-profits
- Taught elementary-age children programming and design using Scratch, an MIT programming toolkit

Chief Technology Officer, Intelligent Decisions, Inc (Computer Manufacturer and Integrator, Chantilly, VA) June 1993 – June 1997

Primary Functions: Sales Engineer, Systems Engineer, Network Administrator, Programmer

- Supported company growth from 10 to 45 people, as sales grew from $25 million to over $100 million
- Provided pre-and-post sales support to key clients, including GTE and the U.S. Departments of State and Defense
- Created a Linux-based SCSI disk duplicator to aid in software distribution
- Built company's network, managed its servers, and connected it to the Internet in 1995
- Started Internet Services line of business acquired by Microstate Corp. (formerly ObjectLinks)

Professional Qualifications and Community Involvement

- Member of IEEE, IEEE Computer Society, and the Association for Computing Machinery
- Open Source project contributor: Vagrant, PostgreSQL, MRTG, JPackage.org, jabberd2, diradmin, wpDirAuth, django-extensions, pluma, gogogon, mb2md

Education

Virginia Polytechnic Institute and State University, studies in Computer Engineering and Studio Art, 1990-1993
George Mason University, studies in Computer Science, 1994

References available on request