## SOFTWARE & SYSTEMS ENGINEER

**PROFILE** 

Detail-oriented engineer with years of experience as a software and systems engineer that has the ability to think out of the box and create cohesive solutions when confronted with complex issues. Skilled at operating in a wide range of OS environments. Experienced in a wide range of programming languages with a focus on webcentric languages (PHP, Javascript/jQuery, HTML5, CSS, etc.) and systems languages (Java, C++, Bash, etc.). Adept at engineering Xen and other virtualization environments. Excellent communication ability; skilled at explaining complex problems and working through intricate issues.

**EXPERIENCE** 

### MIDDLEWARE CONSULTANT

Red Hat, Inc.; McLean, VA

2013-Current

Acting as a software and systems engineer, I'm currently employed to work on a number of different projects for many different business entities.

- Development using Maven, some Spring 4.0.7 MVC.
- Configuration and implementation of HornetQ JBoss Queues.
- Configured and maintained JBoss EAP 6.2.
- Integration engineering for Data Grid 6.2 Caching Mechanism (Infinispan).
- Data Grid 6.2 and JVM Optimization.
- 3<sup>rd</sup> party acquisitions technology mediation.
- Systems automation through Puppet.
- RHEL 6.5 consultation, implementation & troubleshooting.
- IBM Big Insights eco-system configuration, implementation, management & troubleshooting.

## CONSULTANT

Radiant Point Technologies; Manassas, VA

2005-Current

Developed websites that have ranged from small intranet based websites to extensive/complex front-end/back-end multi-site LAMP/WIMP/WAMP infrastructures. Custom application development to solve the needs and problems of clients (ranging from web based projects to system level applications in both Windows and Linux operating systems).

- Microsoft centered dynamic web design using ASP.net MVC 4.0 and C#.
- C# and VB.net based applications using Singleton patterns.
- Open-source scheduling solution in Laravel using a RESTful design pattern.
- Reverse engineering pre-existing applications in a multitude of environments.
- Application tuning in multiple different stacks with primary focus on LAMP.
- Maintaining pre-existing massive 150k+ line VB.net Intranet Based Applications.
- Legacy migration of PHP into a more logical, MVC based structure under Laravel.
- Legacy conversion of code from ColdFusion to PHP.

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- Relational database (MSSQL, MySQL, etc) maintenance, modification, engineering, query analysis and design.
- Multiple custom backend and frontend Wordpress CMS website integration.
- Custom PHP/Laravel dynamic surgery scheduling calendar for 200+ doctors.
- Worked on a multitude of other web related projects.

#### SOFTWARE & SYSTEMS ENGINEER

Progeny Systems Corp; Manassas, VA

2006-2013

I worked here as a customer facing, software and systems engineer charged with many responsibilities. Headed up virtualization research in open source virtualization technologies such as Xen, KVM, open-source Citrix tooling. Tasked with developing software and systems level projects in support of U.S. Naval technical efforts, biometric related endeavors, custom Linux server farms, and the researching new/emerging technologies.

- Co-developed MySQL, Java (and other toolsets) application responsible for sifting through sonar related data.
- Designed rapid deployment Linux live CD LAMP based tool set for re-constructing 'events' based on pre-existing LTO-5 tape data.
- Maintained ~2mil+ line code base called DDCS (Digital Data Collection System). Employed Core Java concepts such as Thread Pools, Exception Handling, etc.
- Full SDLC integration with a team of ten local and remote developers.
- Employed design patterns (Singleton, MVC, etc.) to assist with development and code readability in all projects assigned.
- Designed multi-threaded core Java, XMLRPC, Swing UI server/client application responsible for a network based optical based media.
- Lead developer on Java, XML, Bash (and other Linux toolsets) based dynamic Screen Capture Agent.
- C++ and Boost 1.49 database interfaces design for biometric facial recognition software.
- ANSI based SPROCS, queries, and functions design.
- Lead research into Xen based collapse of Naval hardware virtualization.
- Successfully virtualization collapse from 8U to 2U utilizing internal bridging, open vSwitch, PCI-passthrough, and dynamic resource allocation for real-time network gating.
- Created and demoed to Navy research based video-passthrough Xen based display for system wide workstation collapse.
- Utilized open-source Citrix's XenServer (<u>xenserver.org</u>) to demo additional features such as live failover, etc.
- Researched and implemented OpenStack based solutions.

### SOFTWARE & SYSTEMS ENGINEER

### WEB APPLICATION & DATABASE DEVELOPER

University of Pittsburgh, School of Nursing; Pittsburgh, PA

2004-2006

- Wrote technical hardware specifications and procurement suggestions in project planning that resulted in a successful project startup of the e-QLTP (Electronic Questionnaire for Lung Transplant Patients).
- Designed, developed, and implemented electronic survey functionality in Microsoft Access to improve survey methods for attaining metrics associated with lung transplant patients.
- Developed additional LAMP based applications to enable medical surveys to be completed away from the clinical setting.
- Worked closely with research team to optimize database efficiency and to attain research team's standards and expectations.
- Work conducted here eventually led to being published in a medical journal.
  Evaluation of the electronic version of the questionnaire for lung transplant patients http://www.ncbi.nlm.nih.gov/pubmed/17484242.

## QA & WEB DEVELOPER

invivodata, inc.; Pittsburgh, PA

2003-2005

- Lead major revisions of company training database.
- Developed initial version in MS Access to statically track employees as they submitted training (in paper form).
- Developed and released subsequent versions in PHP, MySQL, and JavaScript to enable dynamic tracking without QA intervention.
- Developed and released an administration website to ease knowledge required by QA to effectively administer to the online training website.
- Developed web applications under regulations such as HIPAA, Part11, etc.

LEARNING

Actively enrolled in the following courses online:

- Servlets and JSPs Tutorial: Learn Web Apps with Java (udemy.com)
- Web Programming with Python (udemy.com)
- The Java Spring Tutorial (<u>udemy.com</u>)
- Android Lollipop: Complete Development (<u>udemv.com</u>)
- AngularJS (<u>udemy.com</u>)
- The Complete iOS8 and Swift Course (<u>udemy.com</u>)

PROGRAMMING

PHP, Bash, .net (C#, VB.net), ASP/Razor MVC, jQuery, AngularJS, node.js, XHTML, HTML5, XML, CSS, Rails, SQL (MySQL / MSSQL / Sqlite), NoSQL (MongoDB), Java, C, and C++.

FRAMEWORKS

Foundation, Laravel, Twitter Bootstrap, Spring, some Boost experience.

AUTOMATION

Puppet.

VIRTUALIZATION

In Depth Xen 4.4 experience, Citrix Xen, VMWare and some KVM.

OPERATING SYSTEMS

Active use of Linux, OS X, and Windows.

# SOFTWARE & SYSTEMS ENGINEER

EDUCATION University of Pittsburgh

Pittsburgh, PA — Information Sciences/Computer Science, 2006

CLEARANCE Active Secret clearance.

CERTIFICATIONS RHCSA, <u>License</u> #140-002-981

RHCSA in OpenStack, License #140-015-603

REFERRALS Available Upon Request