

Dru Lang

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Objective

To further my professional experience and knowledge of Linux systems and backend programming, not going past middleware, by finding a challenging environment that is conducive to learning, collaborating, and always striving to find the best solution as an individual and team. Networking, automation, Linux system administration, and NoSQL are also of great interest to me. I continually work on these skills at home through personal projects and by studying.

Technical Summary

Languages	Python, Java, Perl, C#, PHP, Ruby, SQL
Software	Eclipse, NetBeans, Visual Studio 2010, Subversion, Git, Vagrant, VirtualBox SQL Server Management Studio, Oracle SQL Developer, VMware vSphere
Database	MySQL, Oracle, SQL Server, SQLite, Redis, MongoDB
Systems	CentOS 6, Windows Server 2003/2008, VMware Hypervisor

Education

Appalachian State University; Bachelor of Science in Computer Science, May 2010

Work Experience

Truliant Federal Credit Union, June 2010 – Present

Winston Salem, NC

System Operations Specialist, June 2010 – February 2012

- Maintained and monitored production batch schedule
 - Rotated on-call schedule
 - Responsible for specialized batch and processes(month end, year end, patches, etc.)
- Wrote SQL queries to assist with batch and other miscellaneous tasks
- Wrote Perl programs to automate and solve business problems
 - Wrote job to pull data from a SQL Server database and create an extract file to update payment information for 2500 mortgages in our external mortgage application
 - Wrote several ad hoc scripts to do transaction fixes and reversals
- Received “Rookie Award” which is given to an individual who in an under a year has had a tremendous impact on the Credit Union
- Key leader during core conversion
 - Worked heavily in batch implementation
 - Coordinated with the core vendor's implementation team to install/troubleshoot jobs and create production batch schedule
 - Led install, documentation, and training of UC4's Application Manager (AM)
 - Wrote generic Perl jobs for the Application Manager

Application Developer I, February 2012 – Present

- Write Python/Perl programs to solve automation needs
 - 20 jobs; functionality including file handling, SSH and HTTP scripting, SFTP movement
- Leading group to bring automation to IT and the go-to person for automation needs
- Brought significant improvements to System Operations team

- Write ad-hoc Perl/Python programs to solve immediate business needs
 - Solutions often include file processing/parsing/manipulation and bringing multiple data sources together; Oracle, SQL Server, CSV files
 - Wrote script to fix 300 organizations in Core to save a business unit from doing manually through the use of Python, Oracle PL/SQL and the Core XML API
 - Wrote script to fix time-sensitive IRS Tax Forms, 100,000+ records
- Wrote a business loan payment processor to post scheduled multi-thousand dollar payments
 - Written in Python 2.7 with OOP principles
 - Designed relational database
 - Used 3rd party SOAP WebServices, the core XML API and raw sockets to handle TCP/IP communication with core architecture
 - Multithreaded application to significantly reduce processing time
 - Started standard Truliant Python library
 - Logic to prevent transaction double postings
 - High profile project that was delivered on time and a huge success
- Designing a Linux based real-time transaction system to post remote check deposits
 - Three stage solution with high availability, load balancing, scalability, security and persistence at each stage
 - Being written in Python 2.7 with OOP principles
 - Using Redis 2.6 as a message queue, for logging and parameter storage
 - Message receiving application written for Apache on top of mod_wsgi
 - Designed distributed multi-site, multi-queue round robin queuing system
 - Designed with low downtime as a key element. System and application level parameters can be changed without bringing down services
 - Multiprocessing and multithreading incorporated
 - Collaborating strongly with System Administrators

Breyerfest Charity Horseshow, 2010-2013

Greensboro, NC

Volunteer Programmer

- Responsible for creating an application to help the manager do research on 130+ entrants and 5000+ horses

2010:

- Designed and implemented a basic Java Swing GUI
- Migrated use of paper forms to electronic forms
- Reduced manager's workload from 50+ hours of physical binder lookups to 8 hours

2011:

- Scraped 2010 Java GUI to create a PHP web application
- Designed normalized relational database
- Application had several forms to do entrant lookup based on an ID and to submit placement results
- Setup, administered, and networked an Ubuntu LAMP Server to host the application
 - Server became compromised due to inadequate form sanitation. Quickly learned the importance of programming securely and gained experience in reacting to a compromised server/application

2012:

- Scraped 2011 application to create an improved web application
 - Redesigned the relational database to reflect a more accurate data model

- Application has user, horseshow, and horse profiles with different access levels based on user role
- Search capabilities expanded to search by a horse name or owner name
- Research tool was greatly improved
- Added reporting
- Ability to insert multiple placements at once, reducing workload to 4 hours
- Setup, administered, and networked home development environment using VmWare Hypervisor
- CentOS 6 servers; MySQL, Apache, Samba, Subversion, OpenVPN

2013:

- Continuing work on 2012 application
 - Finishing implementation from previous year
 - Planning to update the application to a Web2.0 feel using Bootstrap
- Setting up production environment at home to do the hosting myself

Personal

Home Lab:

- VMware Hypervisor Server
 - Running CentOS 6 boxes
 - DHCP, DNS, OpenVPN, Apache, MySQL, Samba
- CentOS 6 box as a router using iptables
 - Connects my lab VLAN environment to rest of home network
 - External SSH access
 - Port-forwarding to VPN server
- Physical web server
 - Hosts <https://drulang.com>
 - On its own VLAN to help mitigate a compromise

Short-term Goals

- Achieve RHCSA by the end of August 2013
- Gain a deeper understanding of Linux Systems Programming