

# Jon S. Miller

Software Engineer

## OBJECTIVE

Self-motivated professional with a strong background in software development and system administration. Passionate about leveraging technology to drive business growth, I thrive on solving complex challenges and continuously expanding my skills.

## SKILLS AND ACCOLADES

- Programming languages include Python, Java, Golang, C/C++, Javascript/TypeScript, Rust, Bash, Ruby, Perl, SQL.
- Presented at RedHat Summit 2012 concerning the technical and business value of running Linux on the Mainframe: “Turbocharge your Mainframe with Linux: Let Us Show You How”
- Publications: Python Magazine's May 2008 issue entitled “LDAP backed initScripts in Python”; Python Magazine's July 2009 issue entitled “Running Large Python Tasks With Hadoop”
- Presented at 2008 PyWorks Conference: “Using Python with LDAP”. The talk included an introduction to the LDAP module for Python and concluded with a demonstration of moving local config data into LDAP and modifying an existing application to pull its data from LDAP.
- RedHat Certified Engineer (RHCE) and Linux Kernel Internals certification of completion from RedHat (RHD236).
- Database experience: DB2 7, 8, 9; Oracle 9, 10, 11 including RAC; Sybase ASE 11.X, 12.X. Non-proprietary RDBMS experience includes MySQL, PostgreSQL, sqlite, bdb. Duties have included system configuration, tuning, SQL optimization, stored procedures, backups / restores, DDL definitions, disaster recovery planning.
- 6 years experience with Solaris 2.6, 2.7, 8, 9, 10; 2 years HP-UX 11i; 3 years AIX 5.3
- Networking knowledge TCP/IP, LDAP, NFS, SNMP, SMTP, HTTP(S), SSH.
- Ability to work under pressure.
- Excellent written and oral communication skills.

## WORK EXPERIENCE

APPLE, Sunnyvale, CA / Remote

*Software Engineer (01/2016-Present)*

- Integral part of building from scratch the Rio CI/CD system for internal Apple development teams. In particular all of the orchestration that occurs when pipelines reach the agent machines from managing code repositories, orchestrating a wide variety of language compilation and testing to publishing a variety of artifacts.
- Spent two years in a DevOps role helping to automate Jenkins infrastructure while also supporting our GitHub Enterprise and Artifactory installations.
- Returned to the original Rio CI/CD team where I continued to contribute to our large variety of repositories that leverage languages spanning Java, Python, Kotlin, Golang, Shell, Rust.
- Managed an internal collection of language build packs, modeled after Heroku buildpacks, while cultivating other teams / contributors in a community fashion.
- Acted as the primary interface with our support team to identify hot-spots of support and to improve the overall customer satisfaction.
- Responded to and remediated numerous security vulnerabilities identified through security reviews.
- Given talks at internal conferences and open-source meetups regarding our team's offering and roadmap.

QUALCOMM TECHNOLOGY INCORPORATED, San Diego, CA

*Staff Engineer (12/2012-12/2015)*

- Managed Corporate R&D's Linux images including maintaining custom Linux kernel along with developing tools and processes to aid multiple projects.
- Maintained custom pseudo-RT (CPU isolation) Linux kernel image across multiple versions between 3.9 through 3.19 while developing a framework to validate the image and collect tracing data (ftrace). Built in MPTCP support on select kernel images.
- Consolidated Cobbler imaging systems into a single Spacewalk (SW) server. Developed Python script to use SW API to publish/update profiles while committing changes to a git repository.
- Introduced Ansible for process automation for product buildout as well as maintaining custom image settings in an ansible-pull architecture. Contributed a Spacewalk inventory script to upstream Ansible project.
- Established department Python standard module templates via Paster which included linting and testing patterns. Built an internal PyPi server on private Activestate Stackato PaaS to host our modules.
- Introduced Linux Containers (Docker) to the department. Built a wrapper tool to ease launching of containers driven by a separate config and built a custom Docker repository to host our images.
- Coordinated with IT department on network changes (shared HP iLO ports) and LDAP enhancements (Samba authentication attributes and built a Perl script to provide autofs indirect map LDIF data)
- Additional tooling work included: Script to combine Google repo, Atlassian's JIRA and git-flow; Built a Graphite server to store various metrics (source code metrics, LDAP performance).

NATIONWIDE INSURANCE, Columbus OH

*Linux/Unix Architect (06/2010-Present)*

- Responsible for setting the technology direction for our Linux and Unix platforms by watching industry trends, weighing risk, calculating ROI and integration with existing infrastructure.
- Frequently presenting ideas/projects/roadmap to a large variety of audiences from technical teams to CTOs.
- Translate business requirements from our multiple lines of business to standard, supportable solutions.
- Create, publish, and present a technology roadmap for strategic initiatives and led engineering teams throughout implementation.
- Mentor Engineering and Operations team members for skill uplift and career development.
- Designed and taught a week long Python programming class for engineering teams breeding an ecosystem of collaboration.
- Work closely with the procurement team in conducting vendor negotiations.
- Responsible for adherence to business continuity plans spanning multiple business units.
- Joint showcase program with IBM modeling application workload to align applications for the proper architecture.
- Led architecture team in developing our IaaS cloud strategy and closely with our PaaS strategy.

B7INTERACTIVE, Colorado Springs, CO

*Independent Contractor (10/2009-05/2010)*

- Duties include Software Design & Development; System Administration  
EC2 node administration, Scripting, Hadoop
- Nagios Monitoring Framework deployment

NATIONWIDE INSURANCE, Columbus OH

*Senior Linux Engineer (12/2006-06/2010)*

- Systems Engineer for our Oracle RAC deployment. Work in standardization led to creation of a local RPM repository of our build patterns.
- Manage over a thousand Linux guests in a team of ten comprising %50 Suse Linux guests running on z/VM, %30 Linux guests running on ESX and the remainder physical HP proliant servers. Maintain the build of our SLES 9, 10 images along with our RHEL 3, 4 and 5 builds. Autoyast and kickstart configs.

- Member of our Linux and Unix concurrency teams which guide the direction of our use of Linux and related technology in the company.
- Wrote inspection scripts, used by middleware support team, for performing reverse engineering of top cpu running processes. Summarized system calls, identified looping processes, process trees and pidfile summaries while gathering data for potential support cases.
- Wrote a Linux kernel module which resets signal handlers and updates limits on a process. Module's creation marked the first time, in over a year with a PMR case with IBM, that we were able to acquire a system core for our support case.
- Received “Innovator of the Year” award in 2008 to our team by IBM for our work of running zLinux on the mainframe.
- Mentor co-workers in learning Python and Shell. Provided lessons and encourage further development by creating mini-projects to aid our environment and their development.
- Created an automated data collection system for any and all points of interest with our servers. Included batch system along with web service for retrieving and storing further data points. Written in Python and mainly utilizing the paramiko ssh module, web.py framework and SQLAlchemy ORM.
- Migrated Linux environment from local accounts to LDAP. Led effort which included configuration and scripted consolidation of disparate user and group IDs.
- Solution lead in our Read Only Root (ROR) effort in our zLinux environment. Shared root (/), /usr and /opt file systems as readonly references of the same DASD disk. Managed resources and coordinated migration of over 500 servers to our new server configuration saving over 1TB of DASD storage and increased security.
- Developed solution to share DB2 binaries, across various fixpack levels, in our zLinux environment.
- Consolidated documentation for the team in a single Wiki site while leading the increase of documentation production levels two fold.
- Implemented source code repository solution (SVN) for better management of scripts and configuration data for the team. Deployment included educating and guiding team members in SCM principles.

STERLING COMMERCE, Columbus OH

*Senior Unix Administrator (6/2000-12/2006)*

- Team lead of Unix team.
- Everyday responsibilities include DNS (bind), LDAP accounts, Veritas Netbackup, user/group maintenance in LDAP and ADS, Veritas Volume Management, Veritas Cluster Server (VCS).
- OS based firewalls include sunscreen, ipfilter, iptables.
- Created multiple custom Veritas Cluster Server (VCS) agents.
- Implemented log monitoring tool utilized company wide across all Unix/Linux servers in Perl which supplemented Unicenter framework in handling Veritas Cluster Server (VCS) clusters.
- Implemented linux-ha.org’s Heartbeat in money saving clustered solution along with NFS cross mounted shared file systems.

- Wrote administration utility to abstract application details to administrators and centralized configuration with custom schema in LDAP. Could then control RC scripts centrally for 3<sup>rd</sup> party addon software.
- Maintained CVS server for the company. Incorporated viewcvs CGI application, cvsd with ten repositories and synchronizing accounts with LDAP accounts.
- Design highly available customer facing infrastructure for an in-house hosting solution. Involved network load balancers, clustered applications and Oracle RAC for the full 3-tiered application.
- Built out IBM Websphere MQ v3.5 infrastructure for wide company use on Solaris within VCS.
- Designed and implemented modular Solaris Jumpstart infrastructure. Each software component being managed in simple, separate scripts and status of each script maintained across reboots as well as ongoing operations.
- Sun Solaris hardware experience includes netra, 250, 280, 880, 420, 4800, 6800.
- Dell hardware experience with 2450, 2550, 2650, 6850, 2850, 6850, 4850.
- Apache (AJP Connector, modproxy, virtual servers, SSL), Tomcat, JBOSS, BEA Weblogic.
- Implemented in house collaborative blog for team. Promoted documentation and teamwork. Developed custom plugins to assist in common repetitive work such as change management communications.
- BEA Weblogic Server 6.1 certification.
- Administrated Sybase Databases versions ASE 11.9, 12.0, 12.5.
- Developed installation standards for DB2 7.2, 8.1 as well as assisting administration.
- Oracle 10g RAC R1, R2 installations and administration on Solaris and Linux platforms. Developed standardization and automated installation for each of the RDBMS systems. Maintained Oracle RAC cluster of 7 nodes and 500GB of SAN storage on RHEL 3.0 servers.
- Developer in Billing department, coding in C, C++, ksh, and sql against Sybase and Informix databases.
- Developer in commercial facing customer offering. Handled new feature enhancements while supporting C++ applications using Sybase Database and ASP web pages.

## **EDUCATION**

THE OHIO STATE UNIVERSITY

1996 – 2001 B.S. Computer Science - Advanced Studies Option.

Eagle Scout

## **REFERENCES**

Both personal and professional references are available upon request.