MARTIN WALSH
Linux System Administrator · DevOps

Evanston, IL, 60202
⊠ *sysadm@mwalsh.org*

SUMMARY

Code-slinging system administrator, DevOps practitioner, and open source enthusiast with more than 15 years experience and a penchant for automating . . . everything.

- Detail-oriented and dedicated to fulfilling business objectives
- Trusted teammate and mentor with a reputation for high productivity
- Deep understanding of configuration management practices and rationale
- ChatOps fan and a stickler for operational transparency
- Strong programming background; Python language expert in scripting/automation

PROFICIENCIES

Systems	RHEL/CentOS, Debian/Ubuntu, Mac OS X, Windows
Services	Apache, Nginx, HAProxy, Memcached, Redis, RabbitMQ, BIND, Postfix, PuppetDB, Elasticsearch, Consul
Tools	Puppet, Hiera, Ansible, Vagrant, Packer, Docker, Git, Make, Capistrano, Jenkins
Monitoring	Nagios, Ganglia, Logstash, Graphite, Statsd, Monit, Kibana, Grafana
Languages	Python, Ruby, Coffeescript/Javascript, Bash

PROFESSIONAL EXPERIENCE

Sr. Systems Engineer *Leapfrog Online*, Evanston, IL   **2012–Present**

Responsible for monitoring, maintaining and improving the system performance, reliability and security of business-critical, customer-facing infrastructure.

- Acted as systems engineering lead in support of the ongoing development of multiple selling platforms
- Participated in the planning and successful execution of a large scale production datacenter migration with minimal downtime
- Provided in-house training to cross-functional audiences, covering topics such as:
  - Nagios: configuration best practices and custom plugin development
  - Puppet: best practices, development workflow, and testing
  - Dashboard creation and data analysis with Kibana/Grafana
  - SSL/HTTPS, DNS and domain registration
- Assisted in the creation and maintenance of more than 80 custom and 3rd party Puppet modules, custom parser functions, providers and facts, using modern best practices (Puppet, Hiera, Ruby, PuppetDB, rspec-puppet, Beaker, Make)
- Wrote helper scripts to automate local Puppet development tasks, such as:
  - Unit and acceptance testing
  - Catalog diff'ing of local changes vs. the most recently applied catalog
  - Full-context rendering of individual file resource templates
- Developed a lightweight Puppet dashboard replacement that included an API endpoint for monitoring and other custom capabilities (Python, Flask, YAML, JSON)
- Shepherded a custom instance of GitHub's Hubot, used heavily for automated deployments, Nagios management and alerting, orchestration of routine system upgrades and much more (Coffeescript, NodeJS, Ansible)
- Replaced a difficult to maintain, manually managed, Windows DNS server with BIND automation, providing a self-service workflow based on standard application deployment procedures (Python, YAML, Git, Capistrano, Jenkins, BIND)
- Fully automated the reproducible build-out of a disaster recovery environment (Packer, Ansible, Puppet, Python)
- Managed a Nagios instance with approximately 1800 service checks against more than 150 hosts, filled gaps in monitoring by writing custom plugins and improved alert messaging to facilitate incident response
- Standardized development practices for all applicable Ops-only software projects, encouraging contributions from other teams (GitHub Enterprise, Git, Make, Bundler, virtualenv)
- Designed and implemented high-availability clusters for RabbitMQ and Redis
- Created standardized Docker images for use in local testing by fellow software and systems engineers

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System Administrator *Parity Systems*, Evanston, IL   **2005–2012**

Responsible for the installation, configuration, maintenance and documentation of all hardware and network services, for use by internal staff and clients in support of software (web) development projects.

- Implemented a comprehensive network and performance monitoring solution (Nagios, Python/Jython, Java, rrdtool)
  - Wrote more than 20 additional custom checks for unusual hardware and services
  - Created a utility framework for rapid development of new service checks
- Constructed a server-room climate monitoring system for less than $100 (owfs, Nagios, Python)
- Evaluated several free and/or open source virtualization management technologies; recommended and implemented the best choice (VMware-server, ESXi, KVM/libvirt, Proxmox, etc.)
- Created a Debian-based USB/LiveDVD disaster recovery environment (dnsmasq, PXE, Clonezilla, Dokuwiki, Subversion, Puppet)
- Built an immutable Live CD-ROM image to provide distributed PDF conversion services for consumption by internally hosted Java web applications (BartPE, LibreOffice, OOoServer, KVM/Proxmox)
- Installed and maintained the company wiki as its primary contributor, providing documentation of critical business systems.
- Automated AS/400 configuration, monitoring and reporting tasks to improve responsiveness of legacy support requests and to simplify administration (Jython, JTOpen).
- Created a website-to-PDF screen capturing web service to facilitate acceptance of content change requests (Python, Selenium, pdftk).
- Installed and configured an OpenBSD/pf based "bump-in-the-wire" transparent firewall
- Developed a general purpose and extensible FTP and LPD daemons, in Python, which were used in several internal development projects.
- Developed an MS Office 2010 conversion service, with a Python xmlrpclib front-end, to convert office documents into open formats.
- Wrote and maintained a collection of Python utility modules for common system tasks.

IT Manager *RS Industrial*, Buford, GA   **2000–2005**

- Researched, recommended and purchased new technology for the entire organization
- Supervised the development e-commerce websites used by both wholesale and retail clients; contributing code to integrate with a payment gateway service
- Cooperated in planning and oversight for the construction of a second location, including the design and installation of combined network
- Scripted weekly sales reports from disparate data sources, formerly an error prone and lengthy manual process
- Combined several common open source tools, to create a voice-call notification system (Nagios, festival text-to-speech, Python, xmlrpclib, pyserial)
- Participated in both retail and industrial product launches.
  - Lead a small team to design product packaging and sales literature.
- Developed several customer service database features, furnishing automation and integration, and providing commonly requested functionality (FileMaker, MS Great PLains).
- Introduced open source software to provide network services at a greatly reduced cost (Postfix, Spamassasin, Amavisd, BIND, dhcpd, Hylafax, Samba, cups, Nagios).

RECENT TRAINING

Statistics for Ops: Making Sense Out of Data	LISA Conference 2014
R for Sysadmins	LISA Conference 2014
Python for Data Analysis	PyCon 2013