

Michael Altfield

<https://www.michaelaltfield.net>

Summary of Qualifications

Linux enthusiast with over 13 years of work experience. Broad range of technical skills with proficiency in several languages. Dedicated, hard worker with outstanding problem solving skills and a passion for security.

EDUCATION

University of Central Florida

Bachelors of Computer Science
Minor: Secure Computing and Networking

Orlando, FL
Graduated: April 2013

TECHNICAL EXPERIENCE

Operating Systems

- Extensive experience: Red Hat/Cent OS, Debian/Ubuntu, Qubes, Gentoo, Windows, OS X, Knoppix, Arch, IPCop, SmoothWall
- Moderate experience: Backtrack/Kali, TAILS, Whonix, (Open) Solaris, BSD, Fedora, DSL, Puppy, Windows Server 2003

Programming/Design

- Extensive experience: Python, PHP, C, MySQL, PostgreSQL, Perl, Java, BASH, JS, XHTML, CSS, XML, Xpath
- Moderate experience: C++, Ruby, Awk, Sed, Tcl/Expect, ASP, MSSQL, Oz, VB

Enterprise Software Administration

- Extensive experience: Chef, Terraform, Packer, Puppet, Ansible, Splunk, Right Scale, Xen, Wordpress
- Moderate experience: Apache, Nginx, Lighttpd, Varnish, Membase (Couchbase), Open Stack, F5 LBs, LXC, VMware ESX, Foglight, Sitescope, Active Directory, Snort, Nagios, Mediawiki, Big Brother/Hobbit

Cloud

- AWS ec2, s3, Cloud Formation, IAM, ELB/ALB, EBS, EFS, Lambda, DynamoDB, CloudWatch, Spot Fleets

Security

- GPG, SSL/TLS, OSCP, HPKP, HSTS, Let's Encrypt, SSH, TOR, FIM, (H)IDS, IPS, Nessus, nmap, iptables, PCAP (tcpdump/wireshark), OSSEC/Wazuh, auditd, SELinux

Other Familiar Technologies

- Android, Bitcoin, LDAP, SNMP, SMTP, NFS, CIFS, ARP, cURL, cron, FTP(S), SFTP, VLAN, GIMP, Kdenlive, FFmpeg, vi >> emacs

API Experience

- Facebook Graph, F5's iControl, RightScale, Google Local, reCAPTCHA, Mobypicture

Standards Experience

- W3C (X)HTML & CSS, PCI DSS

RELEVANT EXPERIENCE

Senior System Administrator

Open Source Ecology

June 2017 - Present

- Migrated & Consolidated 6 distinct websites from shared hosting to dedicated hosting
- Re-architected Web Infrastructure to include Let's Encrypt https certs using nginx and varnish cache
- Designed clientside encrypted backup solution with offsite cloud storage on Backblaze B2
- Installed and configured phplist server for GDPR-compliant, open-source mailing list. Contributed documentation and code to the phplist project

IT

Democracy Now!

New York, NY

July 2017 - December 2017

- Trained producers & staff how to use PGP and organized the first-ever DN! PGP Key Signing Party
- Provisioned HIDS & FIM solution with PCI-aware, OSSEC-fork Wazuh for private Ganeti (Xen) cloud
- Scripted daily checksum file uploads for daily media content & corruption checks in nagios
- Restored data from corrupt bacula database for archived audio/video content on tape
- Various other IT-related tasks and projects

Software Engineer

Zynga

San Francisco, CA

June 2013 - April 2017

- Helped maintain an extremely large scale environment of >10,000 RHEL nodes, supporting Zynga game studios' dev ops teams for facebook and mobile platforms
- Architected 3-tier ([1] Reserved [2] On-demand [3] Spot Fleet) Instances for high-availability web nodes clusters that leverage 60-90% discounted AWS Spot Instances
- Spent 4 months in Bangalore office leading game team migration from private datacenter to AWS EC2
- Lead Studio migrations between various technologies, including RightScale/terraform, Chef, S3/Swift
- Independently designed/wrote python scripts to automate mass changes to 1000s of nodes in Right Scale
- Worked on-call as Tier 3 support for SREs with escalated issues

Linux Sysadmin Internship

Datalex

Alpharetta, GA

May 2008 - May 2013

- Researched and developed POCs comparing various software solutions (Tripwire, OSSEC, Samhain, etc) to achieve PCI DSS compliance for User/Process Accounting, FIM (File Integrity Monitoring), Change Control, HIDS (Host-based Intrusion Detection), and Incident Response
- Designed/wrote software (both scripts and large projects) as needed for automated, administrative tasks
- Designed/wrote one-to-many automatic deployment system of Datalex software for quick, automated installation & configuration of version-controlled release candidates with transactional (rollback) functionality
- Designed/developed complex Puppet POC for all RHEL environments (~300 prod & pre-prod servers)
- Designed/wrote perl/python automation scripts for Citrix XenServer API and F5's iControl API
- Designed and wrote perl scrapers to simulate malicious data scrapings
- Helped maintain numerous production servers (mostly RHEL on Dell)

IT Internship

City of Kennesaw - IT Department

Kennesaw, GA
June 2006 - March 2008

- Designed and wrote databases/software as needed for internal customers (PHP, MySQL, BASH, JS, ASP)
- Helped maintain high-availability government servers running Windows Server 2003, Solaris, and Linux
- Helped physically rack servers and run cables when upgrading from server closet to proper data center

RELEVANT FREELANCE EXPERIENCE

Technology Blog

Freelance

Kennesaw, GA
August 2007 - Present

- Maintains technology blog <https://tech.michaelaltfield.net> with posts such as: [Howto Guide: Whole House VPN...](#) (2017-08), [HPKP Best Practices for Let's Encrypt](#) (2017-09), [Tor -> VPN in TAILS to bypass tor-blocking](#) (2015-05), [Browsing without being tracked via Fingerprinting](#) (2012-10)
- Other content: Puppet, OpenSolaris ZFS JBOD DIY, GPG, linux, unix, firewalls, VPN, Xen, & IPv6

Webmaster

Freelance

Kennesaw, GA
September 2005 - February 2017

- Created/maintained kmhssoccer.org using PHP, MySQL, HTML, CSS, and JS meeting W3C standards
- Created/maintained knightswiki.org, the unofficial University of Central Florida Wiki

EXTRACURRICULAR ACTIVITIES

Cross Country Bicycle Tours

Freelance

Georgia to California (Summer of 2010)
Maine to Washington (Summer of 2011)

- Rode my bicycle ~4,000 miles from Savannah, Georgia to San Francisco, California
- Rode my bicycle ~4,295 miles from Bar Harbor, Maine to Seattle, Washington
- Raised \$4,900 for non-profit organization Bike the US for MS. Proceeds went to Multiple Sclerosis research & treatment.
- Blogged on 1guy2biketrips.michaelaltfield.net