

# Michael Altfield

<https://www.michaelaltfield.net>

## Summary of Qualifications

Linux enthusiast with over 11 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, Debian/Ubuntu, Gentoo, Windows, OS X, Knoppix, Arch, IPCop, SmoothWall
- Moderate experience: BackTrack, TAILS, (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, 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, 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 terminated by nginx & cached by Varnish

### 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 audio/video content and integrated upload 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 migrations with Studios 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 Systems Engineer 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 and wrote software (both scripts and large projects) as needed to perform automated, administrative tasks
- Designed and 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 and developed complex Puppet POC for all RHEL environments (~300 production & pre-prod servers)
- Designed and wrote perl/python automation scripts interfacing with the Citrix XenServer API and F5's iControl
- 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 R2, Solaris, and Linux

## 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 post's content include: Puppet, OpenSolaris ZFS JBOD DIY, GPG, linux, unix, firewalls, VPN, Xen, and IPv6

### Webmaster

Freelance

Kennesaw, GA

September 2005 - February 2017

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

## EXTRACURRICULAR ACTIVITIES

### Cross Country Bicycle Tours

Freelance

Georgia to California & Maine to Washington

Summers of 2010 & 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](http://1guy2biketrips.michaelaltfield.net)