# Michael Lustfield

Sr. Systems Engineer

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# Key skills

**Automation**: SaltStack, Ansible, Chef, Docker

**OS**: Debian/Ubuntu, Redhat, Windows, AIX, Cisco iOS

**Virtualization**: ESXi, LXC, KVM, VirtualBox, Vagrant

**Frameworks**: Drupal, BottlePy, Flask, Pelican, Django

**Languages**: Python, Bash, PHP, SQL, VB/C#.net, Perl

**Networking**: VRRP/CARP, DNS, Cisco iOS, LACP, VPN

Cloud: GCP, Linode, ESXi,

Proxmox

VCS: Git, Mercurial, SVN, CVS, RCS

# Certifications

SSCE - SaltStack Certified Engineer GCP - Professional Cloud Architect

CITI - Cancer GCP

CITI - Investigators HSR

CITI - IRB HŠR

CITI - Cancer HSR

# **Education**

2010, Dakota State University BA, Business & Computer Information Systems

Minors: Networking;
Network Security

# **Summary**

Driven IT nerd with a passion for challenging problems; experienced with:

- Enterprise environments including Juniper Networks and Sony Pictures
- Release management; Development (Python, Bash, PHP, Perl, etc.)
- Cloud technologies (GCP, Linode); Automation (Salt, Ansible, Chef)

# **Recent Highlights**

# Senior Systems Engineer | Limelight Networks Jul 2020 - Present

- Created Ubuntu 20.04 images for Vagrant and OpenNebula
- Wrote patches to upgrade SaltStack and address security issues
- Updated scripts to support Python 3
- Rewrote salt-bootstrap removing many legacy bugs

# Senior DevOps Engineer (FTE Consultant) | Taos Mountain Jul 2015 - Jun 2020

[ Client: Juniper Networks ]

- Resolved Ansible performance issues reducing run time by over 80%
- Refactored automation reducing failure rate from >90% down to 0%
- Wrote CI tests to completely eliminate manual testing
- Developed tools to scan for and resolve security concerns

# [ Client: Suitable Technologies ]

- Refactored a Jabberd2 authentication patch allowing critical upgrades
- Created a new automation stack to improve security, execution time, etc.
- Wrote patches to support and migrate to redundant services
- Identified and eliminated significant security concerns
- Wrote custom utilities to automate existing processes

### [ Client: Sony Pictures Entertainment ]

- Migrated RHEL license management to a Satellite server
- Reviewed CIS hardening recommendations in detail
- Wrote Chef recipes to apply selected CIS hardening recommendations
- Supported standard system administration activities (updates, issues, etc.)

# **Senior Systems Administrator** | Good Samaritan Society Feb 2011 - Mar 2016

- Deployed and managed servers across more than 300 remote facilities
- Took charge during catastrophic failure, restoring business function
- Audited and wrote patches for financial and healthcare software
- Refactored scripts reducing execution time from weeks to under a day
- Supported many migrations including Active Directory, Exchange, XIV
- Introduced DLP and NTLMv2-based authentication for web-based traffic
- Created fully-automated deployment for remote encrypted ESXi hosts
- Developed website to maintain networking and hardware information
- Deployed and administered a 5-node multi-master MySQL cluster
- Developed a self-service file-restore application

# System Administrator / Website Developer | Kalliki Software Jul 2009 – Dec 2010

- Facilitated interaction between internal and external resources
- Audited security and disaster recovery procedures
- Implemented system for public announcement of security-related events
- Developed Drupal modules, themes, and patches

# Michael Lustfield Sr. Systems Engineer

# **Volunteer / Open Source**

# **Avera Oncology IRB**

- Served as non-scientific/unaffiliated patient-representative
- Reviewed patient consent forms for completeness, accuracy, and clarity
- Reviewed studies to ensure human subjects were properly protected
- Became familiar with industry standards and regulations (OHRP, HIPAA)

### **Debian Linux**

- Obtained 'Debian Developer, uploading' status in 2015
- Maintained packages in Debian repositories
- Joined "ftpteam", reviewing packages for inclusion in the archive
- Reviewed and sponsored packages on behalf of prospective Developers
- Resolved bugs reported in bug tracking system
- Uploaded new packages to Debian build system
- Helped verify OpenGPG identities for inclusion in the Debian Keyring

## **Ubuntu Linux**

- Obtained 'Ubuntu Member' status in 2009
- Supported users through IRC support channels and mailing lists
- Developed infrastructure for "Local Community" groups
- Worked with Canonical to address community-related legal concerns
- Developed tools for community-based projects
- Contributed content to the Ubuntu News and Website teams

# **Nginx Web Server**

- Built community projects, support system, and documentation
- Deployed and managed servers and software for community projects
- Built, packaged, and distributed the Nginx web server packages
- Provided features/patches now included in Nginx source
- Served as a community Point of Contact

## **SaltStack**

- Provided support via IRC channels
- Worked with developers to resolve security and performance issues
- Refactored Debian networking modules and templates
- Wrote first version of the "debconf" execution/state modules
- Provided patches to fix issues with Proxmox, documentation, etc.

# **Home Lab**

- VLAN/Subnet management using pfSense, Cisco iOS, and Mikrotik
- Extended network to VPS providers (hybrid cloud) using OpenVPN and SaltStack
- Engineered long-term encrypted off-site backup solution
- Out-of-band management using Raspberry Pi and Verizon Mifi
- Deployed and managed using salt and git; updates triggered by git push
- Secured access to VLANs using bastion hosts with ssh key + password + 2FA
- Enforced industry best practices throughout entire network using salt