

# 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 HSR

CITI - Cancer HSR

## Education

2010, **Dakota State University**

**BA, Business & Computer Information Systems**

**Specialization:** Systems Development

**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 | *Basis Technologies*

*Aug 2021 – Present*

- Helped support big data infrastructure and operations with an excellent team
- Proposed and implemented changes to saltstack automation
- Provided support during DR situation

### Systems Engineer | *Limelight Networks*

*Jul 2020 – Aug 2021*

- Created Ubuntu 20.04 images for Vagrant and OpenNebula
- Wrote patches to upgrade Salt and address security issues
- Updated scripts to support Python 3
- Rewrote salt-bootstrap script to remove many legacy bugs
- Trained coworkers and teams on Salt usage and best practices

### 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

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## Volunteer / Open Source

### Avera Oncology/Health Science 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 OpenPGP 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