

Michael Lustfield

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Summary —

A CV (english: the course of life) is a detailed outline of an entire professional history, and is not typically used in IT fields. This document is a personal log (diary). Find a summary of my recent skills and experience at <https://resume.lustfield.net>.

Technical Competencies

	Strong	Familiar
Automation	SaltStack,	Chef, Ansible, Puppet
Cloud	Salt-Cloud, AWS(Glacier, Route53),	GCP, Linode
Databases	MySQL, ELK,	OracleDB, PostgreSQL
Frameworks	Bottle/Flask, Pelican, Drupal 6-8,	Django, Wordpress
Languages	Python, Bash/POSIX, PHP, Javascript,	Perl, COBOL, SQL, .Net, Golang
Networking	LACP, IPv4/v6, Unifi, Unbound, Ferm,	VRRP, Cisco iOS
Operating Systems	Debian, Ubuntu, CentOS,	BSD, AIX, Mac, Windows
Policies	CIS, HIPAA,	GDPR, ITIL, PCI-DSS
Testing	Pytest, CircleCI, Inspec,	Docker, Jenkins
Version Control	Git, Mercurial,	Bazaar, SVN, CVS, RCS
Virtualization	Proxmox, KVM, vSphere/ESXi,	LXC, OpenVZ
Web Software	Nginx, uWSGI, PHP-FPM, LetsEncrypt,	Apache, IIS

Professional Experience

Utah Broadband (at AireBeam)

Senior Systems Engineer

Oct 2024 – Present

edge networking, ansible, proxmox

- Provided system administration services for a sister company, enabling a team rebuild
- Planned, rebuilt, and merged two Data Centers (with 50 VMs/servers), enabling other improvements
- Upgraded all servers to current OS release and deployed configuration management, using Ansible
- Implemented security best practices and deployed using a CI/CD workflow, using Github Actions
- Deployed a new highly-available VPN solution, improving security and performance for 100 users
- Finished an incomplete migration from Google Workspace to Microsoft O365

Volkswagen Group of America, Auburn Hills, MI

Linux Desktop Engineer (Project Contract)

May 2022 – May 2024

Remote

- Collected company policies and end user requirements into a comprehensive project outline
- Engineered Linux Endpoint solution for AI/ML developers in compliance with security standards
- Designed a solution that permits specific security exceptions for targeted teams
- Created automated (iso and ipxe) installer, providing a fully configured and testable endpoint
- Automated management and rotation of encryption keys
- Supported PKI keycards for user login along with custom boot theme and messages
- Integrated automatic system updates with existing Change Control processes
- Wrote secure interfaces for user self-service, device auto-recovery, and remote support

Basis Technologies, Chicago, IL

Systems Engineer (DBA SRE)

August 2021 – March 2022

Remote

- Supported big data infrastructure and operations
- Proposed and implemented changes to saltstack automation
- Replaced many random text files with a documentation management system
- Provided support during disaster recovery as part of research-active team
- 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 scripts to remove many legacy bugs
- Trained coworkers and teams on Salt usage and best practices

Taos Mountain, San Jose, CA

Senior DevOps Engineer (FTE Consultant)

July 2015 – June 2020

Hybrid

- Helped acquire new business through referrals and business relationships
- Managed personal travel arrangements, expenses, and budget
- Juniper Networks, Remote
- Identified bugs and performance issues in configuration scripts and provided patches
- Assisted building a custom configuration management solution

- Wrote ansible configuration and supporting scripts to deploy system hardening solution
- Reduced failure rate of remediation process by over 90%
- Followed manual package testing procedures and helped implement automated testing
- Wrote integration tests to verify integrity of package modifications
- Resolved issues encountered during system hardening process
- Assisted internal IT staff and team members with system support
- Developed tools to scan for and resolve focused security concerns

Suitable Technologies, Hybrid

- Refactored a patch used to implement a custom user authentication mechanism for Jabberd2
- Built custom Debian package for Jabberd2, providing a solution that supported multiple TLS versions
- Re-factored entire automation stack; improving maintenance burden, security, and execution time
- Constructed new backup solution based on least-access principals
- Identified and provided solutions to often-significant security and performance concerns
- Wrote new utilities to bridge gaps in existing processes

Sony Pictures Entertainment, On-Site

- Primarily focused on system automation and hardening
- Supported standard system administration activities (updates, issues, etc.)
- Deployed and maintained a RHEL Satellite server for repository mirroring and license management
- Automated deployment of a Satellite server to manage client licenses
- Reviewed CIS document and created solutions to enforce selected policies
- Wrote Chef recipes to apply selected CIS recommendations

Good Samaritan Society, Sioux Falls, SD

February 2011 – March 2016

Senior Systems Administrator (SRE)

On-Site

- Deployed and maintained linux servers across more than 300 remote facilities
- Managed server software and hardware; working with tape, blade, and SAN configurations
- Built server deployment processes, providing fully configured remote servers
- Managed McAfee Web Gateway and Web Reporter infrastructure and configuration
- Introduced TLS/SSL MitM inspection and AD-based authentication for web traffic
- Created a fully automated ESXi deployment system with auto-deployed and encrypted guests
- Took charge in disaster recovery situations; constructed and carried out recovery options
- Created web-based infrastructure maintaining networking, hardware, and support information
- Wrote scripts to scrape and parse legacy MS Office documents for data reuse and web import
- Optimized scripts for efficiency with an execution time improvement of up to 4,000%
- Provided critical support during many migrations, including MS AD, Exchange, XIV, hardware refresh, etc.
- Developed a self-service file-restore application
- Deployed and maintained a 5-node multi-master MySQL/MariaDB Galera cluster
- Wrote patches to resolve security-related issues in financial and healthcare applications
- Provided “last-tier” endpoint/server/application support for end users

Kalliki Software, Sioux Falls, SD

July 2009 – December 2010

System Administrator / Website Developer

On-Site

- Mediated interactions between internal and external resources
- Audited security and disaster recovery procedures
- Implemented system for public announcement of security-related events
- Formalized policies regarding system security and management
- Developed Drupal modules, themes, and patches
- Set up and managed company mailing lists
- Worked with clients to develop custom website solutions
- Provided hiring decisions and trained new employees

Secure Banking Solutions, Madison, SD

April 2007 – February 2008

Application Developer

On-Site

- Worked closely with team to build the TRAC suite
- Created USB-based phishing utility used in security audits
- Developed custom mailing list software according to project specifications
- Automated generation of penetration test reports
- Reviewed corporate security models and formalized improvement plans
- Deployed virtual infrastructure to efficiently utilize spare resources

Education

Dakota State University, Madison, SD

September 2006 – December 2010

Bachelor of Science in Business and Computer Information Systems

Specialization: Systems Development

Certifications

Record ID

- **SSCE** (SaltStack Certified Engineer) [Mar 2015] 710C6EC7
- **GCP - Professional Cloud Architect** (Google Cloud Platform) [Apr 2019 – Apr 2021] xuB2dH
- **CITI - Cancer GCP** (Good Clinical Practice) [Feb 2019 – Dec 2024] 46454315
- **CITI - Investigators HSR** (Investigator Health Science Research) [Feb 2019 – Dec 2024] 46454316
- **CITI - IRB HSR** (Institutional Review Board HSR) [Feb 2019 – Dec 2024] 46454314
- **CITI - Cancer HSR** (Cancer Health Science Research) [Feb 2019 – Dec 2024] 46454317

Personal Network

- VLAN/Subnet management using pfSense and Cisco iOS
- Allocated a 64-bit prefix to each subnet using TunnelBroker
- 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 cellular modem
- Deployed and managed using salt and git; updates triggered by git push
- Secured access to VLANs using bastion hosts with ssh key + password + 2FA
- Automatically deployed new devices when added to inventory
- Enforced industry best practices throughout entire network
- Managed all personal and family devices using SaltStack

Volunteer / Open Source

Avera Oncology Institutional Review Board

February 2019 – April 2023

- Served as non-scientific/unaffiliated patient-representative
- Also served on Health Science IRB (February 2021 – Present)
- Reviewed studies to ensure human subjects were properly protected (Belmont Report)
- Became familiar with industry standards and regulations (FDA, OHRP, HIPAA, etc.)
- Reviewed patient consent forms for completeness, accuracy, and clarity

Debian Linux

December 2009 – Present

- Obtained 'Debian Developer, with uploading rights' status in 2015
- Maintained packages in Debian repositories (nginx, tdc, gitea, etc.)
- Joined "ftpteam", reviewing packages for inclusion in main archive
- Reviewed and sponsored packages on behalf of prospective Debian Developers
- Triage and resolved bugs reported in bug tracking system
- Wrote, reviewed, and committed patches to packages
- Uploaded packages to Debian build system, including backports, and (coordinated) security updates
- Verified OpenPGP identities for inclusion in the Debian Keyring

Ubuntu Linux

October 2005 – February 2019

- Obtained 'Ubuntu Member' status in 2009
- Supported users through IRC support channels and mailing lists
- Assisted in development of infrastructure for Local Community groups
- Worked with Canonical to introduce differentiation between official and community projects
- Developed tools for community projects, including Drupal theme and modules
- Contributed content and reviews for the Ubuntu News and Website teams

SaltStack

August 2011 – January 2024

- 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.

Nginx Web Server

February 2009 – May 2023

- Built, packaged, and distributed the Nginx web server packages for Debian
- Deployed and managed servers and software for the Nginx Wiki and Planet
- Built community projects, support system, and documentation repository
- Served as Group Contact for all Nginx IRC channels on Freenode
- Provided features/patches now included in Nginx source
- Served as a community point of contact