Marcus Holtz

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Systems Engineer in Linux, virtualization, networking, containers, automation, and development.

Resume Info

This resume has been created in a **dockerfile** built by a **makefile** and deployed using **Github Actions' CI/CD**. The document is published everyday, with a timestamp at the last page denoting it's publishing date.

Download this document: https://github.com/MarcusHoltz/resume-generator/

Skills

Linux System Administration

• Maintain a reliable and secure hybrid cloud environment for development and serving resources using tools such as SSH/tunneling, SSL, UDP hole punching, VPN, and single sign-on identity management.

• Monitor and log: performance monitoring, network bandwidth usage, memory allocation, hard drive status, and application uptime using Glances, Netdata, Prometheus, Grafana, ELK stack, & Diskover.

• Cross-platform systems administration experience: Ability to install, configure, maintain, and document a variety of production-level Unix based systems: Debian, CentOS, Ubuntu, FreeBSD.

Virtualization

• System virtualization platforms: Docker, QEMU, KVM - with virt-io's 9p filesystem to increase io speed.

• Created system templates for cloning, backing up, and restoring servers across multiple platforms and formats: CentOS, Ubuntu, FreeBSD, Debian in vmdk, vdi, vhdx, qcow2, & raw filetypes.

Containers

• Create, build, deploy containers using LXC and containerd using: docker, dockerfile, docker compose, docker networking, docker hub, github, github actions, proxmox.

• Experience with distributed storage technologies like NFS, Ceph, S3 as well as dynamic resource management frameworks: Kubernetes, Docker Swarm.

Servers

• Deployment and management of headless, bare metal servers in off site datacenter using the model:

Debian image > Proxmox baremetal > isolated containers > pfsense routing > haproxy > public internet

• Configured and deployed ssl certificate management with reverse proxy, added SecurityOnion as an IDS within virtualized infrastructure with additional SPAN port to duplicate internal traffic.

Disaster Recovery

• Built, configured, tested, and deployed Proxmox high availability ZFS solution featuring: Incremental 15min snapshotting for disaster recovery using PBS2, cv4pve and Sanoid.

• Developed and maintain system backup infrastructure including individual machine images, datastores, and off-site backups.

DevOps

• Knowledge of cloud infrastructure (AWS, Azure, GCP, Oracle) & orchestration (Chef, Puppet, Ansible, SaltStack, Terraform, Helm, OpenStack).

• Experience with the core AWS services, including ALB, ELB, EC2, RDS, and S3.

• A proactive approach to spotting problems, areas for improvement, and performance bottlenecks.

Networking (virtual and physical)

• Documentation: Details with visuals of network infrastructure, system architecture, process, and policies.

• Virtual Routing: Administered networking in virtualized environments, including virtualized edge routing with pfSense.

• Technologies used: Linux, OpenVSwitch, SPAN port for SecurityOnion, VLAN segregation, DNS, BIND, VPNs, DNSoverTLS,

• Installation of virtual network infrastructure using: VMware ESXi, Proxmox, Hyper-V, and Xen.

Domain Administration

• Active Directory, SCCM, Domain Trust, Domain Controller, FSMO roles, Active Director Replication, Group Policy, OpenLDAP, RADIUS

• Identity Management and Single sign-on (SSO) (Kerberos, OAuth2, and OpenID Connect; Keycloak)

Data Analytics

• Created actionable reports weekly/monthly to customers and team members. Keeping them informed of how their efforts were going, what they should expect, allowing us to make data-driven decisions – all with visuals and detailed explinations.

• Keep metrics of every varriety, to allow cross-referencal contrasts.

• Love to set up A/B tests to see analytics and insights in action

Project Ownership

• I love to solve problems: Often taking the broad look to spot issues and inefficiencies from a mile away, backing them with suggested solutions, and personally implementing them.

• Personal pride in my work to ensure that every customer has a great experience with what I build.

• Work with many kinds of clients, in a wide variety of fields.

Research

• Able to find a solution through vendor documentation, question and answer websites, and related forums.

• Excelent at researching client's brands, industries, and markets to very quickly come up with a plan to fit their needs.

• Experience architecting system layouts.

Web Development

• Designed and built custom website layout/user interfaces and custom backend software to meet project deadline/requirements.

• Integrated data from various back-end services and databases:

    election data, employee database, interactive event map

• Fixed broken installs, hacked sites, busted databases, and never-been-updated themes/plugins.

Technical Projects

Homelab

My homelab features VLAN network segregation, 6 VMs, ~100 containers, and multi-tier snapshoting.

Presentations

Browser Privacy

The goal of this talk is to put you in control. Understand what data is collected by the tools you use and decide if you want to share it. Then use methods provided here to opt-in or opt-out.

    * BLUG (Boulder Linux Users Group) - 11/10/22

* SFS (Software Freedom School) - 9/3/22

· Link to Slides | Link to Video

Opensource Firmware on Routers

What can Opensource do for home consumer routers? OpenWRT supports more than 1,500 devices most capable of the line enterprise features: Bandwith Monitoring, Guest Portal, Cloudbased IPS.

* SFS (Software Freedom School) - 4/1/23

· Link to Slides | Link to Markdown

Mastodon

Self-Hosted, Open Source, Federated, Decentralized... social media? Mastodon is software for running different, connected social networking services with microblogging features.

* SFS (Software Freedom School) - 12/3/22

· Link to Slides | Link to Video

Industry Experience

Leadership Activies

Software Freedom School, Littleton, CO - 2022 - Present

- Software Freedom School board member since March 2023
- Maintain open tickets for SysOps board
- Presented at monthly community meetings
- Team Member in weekly Linux study group

IT and Web Consultation / Freelancing

Holtzweb, Denver, CO - 2019 - Present

- Established clients' cloud based hosting environments, virtualization, and operations infrastructure.
- Strategized SEO/SEM campaigns across web presence including blogs, email newsletters, ads & promotions resulting in a 40% increase in face to face traffic and web traffic.

Web Development

Highline Ideas, 1187, Mayer Networks, Carbondale, IL - 2013 - 2017

- Created and designed custom website layout/user interfaces
- Integrated data from various back-end services and databases

    election data, employee database, interactive event map

- Worked directly with clients to facilitate business and marking needs
- Executed tests, analyzed data to identify trends and insights using analytics tools and 3rd party optimization tools
- Ensured all site development follows web standards and ADA compliance for accessibility.
- Executed SEO-based initiatives, including website analytics and optimization.
- Fixed broken installs, hacked sites, busted databases, and never-been-updated themes/plugins.
- Repaired, updated, and redesigned new & existing sites.
- Designed custom website layout/user interfaces and custom backends to meet project deadline/requirements.

Education and Training

2011 - *BS in Finance* Southern Illinois University

Linux Foundation Certified System Administrator (LFCS): expected July 24th

Tools

Software Used

Linux, bash scripting, Python, HTML, CSS, JavaScript, MySQL, Apache, Nginx, HAProxy, Traefik, Samba, Windows Server, Active Directory, GIT, VMWare vSphere, ESXi, libvert, QEMU, KVM, Xen, Hyper-V, Nagios, Docker, Vagrant, Ansible, Jenkins, Puppet, Chef, SaltStack, Helm, Kubernetes, Terraform, AWS, GCP, Oracle Cloud, Microsoft Azure, Private Cloud Hosting, Red Hat Linux (RHEL), CentOS, Debian, Ubuntu, OpenSUSE, Android, Adobe Photoshop

Web Development Tools

- CMS: WordPress, Drupal, DNN, Joomla

- SEO: Google Analytics, Piwik, MOZ, SEMRush, Megalytic

- Design: Adobe Creative Cloud: After Effects, Illustrator, Photoshop

- Webserver: Apache, Nginx

- Database: MySQL, Postgres, MariaDB, Redis, MongoDB

- CSS Boilerplate: Bootstrap, Foundation, Tailwind

- Cloud: Azure, AWS, DigitalOcean, Cloudflare

This resume last built on: Sunday 2nd November, 2025