

## Summary:

Linux infrastructure specialist with twenty-four years of experience in training, on-prem, or cloud computing platforms (AWS, GCP). Using my training background, systems administration/architecture know-how, and course development knowledge to architect robust, scalable digital infrastructure. Focusing on core business technology: custom Linux distribution creation, systems automation and DevOps methodologies, telecommunications, systems architecture, design and training.

## Experience

### UserTesting – Staff Software Engineer / Ops and Infrastructure Team Lead – Mar 2021 - Mar 2023

As a staff operations engineer and team lead, I lead a team of six engineers to support and maintain a large legacy code-base. Architected a Kubernetes and Terraform based platform for microservice deployment.

- Led a team of seven engineers as a Technical Lead
  - Managed team backlog and quarterly project planning, maintaining a balance between infrastructure related projects and legacy maintenance needs
  - Facilitated inter-team meetings to managed operational needs of the entire company
  - Created best-practices for the engineering department as a whole
  - Coached team members in security practices, infrastructure as code (Terraform, Ansible, Packer) practices, and other disciplines
  - Facilitated both an architecture and DevOps guild to share best practices in each across the engineering organization
  - Hired to grow our team from 4 to 7 members
- Interfaced with the security team
  - Ensured the company met its compliance requirements (SOC2, SOX, GDPR, and ISO27001)
  - Created and maintained Single Sign On (SSO) for various tools
  - Improved our security profile by moving tools from tokens to OpenID Connect (OIDC), and creating single-repository Terraform roles.
  - Improved our container security practices
  - Participated in security incident response events
- Developed tooling to improve developer experience
  - Built reusable workflows for both GitHub Actions and CircleCI, reducing the amount of CI/CD code the developer would have to create and maintain
  - Created a standardized application infrastructure to reduce the time required to deploy new microservices to non-production environments
- Maintained legacy application infrastructure
  - Supported a Amazon Web Services (AWS) Elastic Container Service (ECS) Cluster which hosted our keystone ruby-on-rails application
  - Maintained CloudFormation examples and boilerplate code for developers to deploy their applications
  - Maintained our custom ruby-on-rails deployment application, migrating it from Heroku to a self-hosted Kubernetes environment
  - Managed our technical debt while still delivering new business needs
- Designed a new application platform based on Kubernetes (Amazon Elastic Kubernetes Service – EKS)
  - Separated production and non-production workloads into different AWS accounts
  - Improved overall cloud security by migrating to current best practices

## Nav – Principal Software Engineer DevOps – Aug 2017 - Feb 2021

As a principal software engineer with a focus on DevOps, I architected, deployed and maintained the infrastructure platform for a late-stage fintech startup. Architected and oversaw migration of a mid-sized traditional Amazon AWS infrastructure into Kubernetes hosted on AWS.

- Mitigated legacy architecture problems using automation(Ansible), security tools (HashiCorp Vault), and my systems operations background.
  - Built a new Ansible architecture to standardize the settings, security, and management of legacy(EC2) infrastructure servers.
  - Created a tool called [vault\\_helper](https://gitlab.com/goozbach/vault_helper)<sup>1</sup> to ease the rotation of encryption keys of the HashiCorp Vault system.
  - Centralized audit logging and user management for HashiCorp Vault. This increased security, accountability, and auditability of the secret storage and encryption systems.
- Built new Kubernetes platform and migrated legacy applications onto it.
  - Built architecture to allow legacy apps and new (k8s) apps to communicate as if they were on the same platform.
  - Standardized a containerization workflow to allow for better security and maintainability.
  - Built container environment tooling to allow for multiple environments using the same container image.
  - Enabled containerized applications to leverage HashiCorp Vault’s encryption as a service to secure customer data.
  - Assisted developers in migrating their legacy applications to the new platform with minimal downtime.
- Improved developer workflow processes and tooling.
  - Created company-wide engineering standards
    - \* JSON based logging standard
    - \* Secret management and encryption standards
    - \* Standard for the proper use of non-production (QA, integration, staging, and sandbox) environments.
  - Built a “canary application” which tested and exercised all the possible features of the platform. This enabled testing of CI/CD pipelines and environments without involving production applications
  - Built a centralized CI/CD pipeline system to standardize deployment pipelines. This enabled developers to focus on their application code, not deployment artifacts and scripts.
  - Built CI/CD pipeline tooling to automate common tasks
    - \* Creation of databases with their corresponding users
    - \* Create master database user/password and store secrets into HashiCorp Vault
  - Migrated all infrastructure creation from an ad-hoc solution to HashiCorp Terraform. Enabling repeatable and better maintainable infrastructure.
  - Implemented RunDocs for every application, bringing operations and development closer into alignment. This also increased the resiliency for the running applications.

## Goozbach Infrastructure Solutions, LLC – Linux Infrastructure Consultant and Instructor – Dec 2011 – Present

Owner and primary consultant of successful Linux consulting and training company providing Linux support and best practices consultation. Customers include RedHat training partners, Linux Foundation, Endosys, Sangoma, Local, State, Federal Government, and the Department of Defense. Customer environments range from dozens to thousands of servers.

Services provided include system updates, configuration management, installation automation, Bash and Python scripting, training delivery, training course development, Telephony Systems design and installation, and other systems administration tasks.

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<sup>1</sup>[https://gitlab.com/goozbach/vault\\_helper](https://gitlab.com/goozbach/vault_helper)

- Designed and built a self-contained, portable training platform for the Department of Defense.
  - The customer needed a digital training environment in locations where we wouldn't have reliable internet access, or use of computers on-site.
  - Designed and built a platform which could be shipped all over the world which contained a portable data center, and a fleet of laptops as workstations.
  - Built system automation to match the deployed software, allowing users an environment which closely matched production environments.
  - Designed and manufactured hardware to facilitate quiet airflow for the mobile data center allowing use in close quarters.
- Created security related training framework for SCORM-enabled training content.
- Consulting customers on DevOps policies, procedures, and tools, using continuous integration (Jenkins), unit testing (Test Anything Protocol, Rspec), configuration management (Puppet, Ansible, CFEngine, Salt), and installation automation (Cobbler, PXE, Kickstart)
- Creating and maintaining virtualization and “private clouds”, utilizing OpenStack, SolusVM, OpenShift, Vmware, Vagrant, Packer, Kubernetes, and VirtualBox
- Automating and scripting system administration tasks using Bash, Python, cron and at.
  - Authored open source Bash libraries<sup>2</sup> and Bash scripts<sup>3</sup> for ease of scripting tasks such as creating VM templates, managing Cobbler profiles, and other systems tasks.
- Developing Linux systems administration training courses for customers such as The Linux Foundation using LaTeX, ConTeX and Docbook.
  - Course topics include Linux Automation<sup>4</sup>, and Linux Network Management<sup>5</sup>.
  - Course creation includes slides, books, lab exercises, and virtual server environments.
- Delivered Linux systems administration training courses and proctored exams for RedHat training partners.
- Built 20 Seat Virtual/Physical inbound support call center.
- Maintained on-site networking infrastructure for local governmental agency.

## **Bluehost – Sr Systems Architect, DevOps – Aug 2014 - Aug 2017**

Sr Linux Systems architect embedded in development team.

Built tools, processes and environments to help facilitate better development team productivity.

Supported pre-production developer environments allowing development team to focus on product development tasks.

- Built and supported automated pre-production systems using Ansible, Puppet, KVM, and OpenStack.
- Provided self-service portals for various development resources.
  - RPM Package building, and YUM repository hosting.
  - SCL (software collections) packages for Perl and other technologies.
  - Alpha systems tear-down and rebuilding.

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<sup>2</sup><https://github.com/goozbach/log4bats>

<sup>3</sup><https://github.com/goozbach/bash-app>

<sup>4</sup><http://training.linuxfoundation.org/linux-courses/system-administration-training/linux-enterprise-automation>

<sup>5</sup><https://training.linuxfoundation.org/training/linux-networking-and-administration/>

## **Coraid – QA Engineer and Tools Developer – Feb 2010 – Mar 2012**

Quality assurance engineering, testing, and tool/platform development, with some focus in product market fit for an Ethernet SAN Storage company. Helped manage QA lab environment of approximately 100 servers and appliances.

- Testing releases of Coraid HBA drivers for Solaris, OpenIndiana, Nexenta, Windows, and Linux platforms; integrating Coraid storage with ZFS on Solaris based systems and Linux LVM.
- Testing firmware updates for Coraid appliances.
- QA tool and platform engineering
  - Building an installation automation system using Cobbler to make installing and testing easier and faster.
  - Integrating Cobbler into a Plan9 based PXE and DHCP environment<sup>6</sup>.
  - Designing and implementing automated QA testing script frameworks built in Bash and Python.
  - Designing and installing a new testing data center.

## **Cox Media Group Digital – Sr Systems Administrator – Aug 2007 – Feb 2010**

Managing day to day digital operations, capacity planning, operations budgeting and operations team lead for a leading media and publishing company with digital presence for Radio, TV, Newspaper, and direct marketing.

- Managed business merger, from a technology stack perspective.
  - Migrated diverse code bases from SVN, BZR, CVS and others to Git.
  - Built collaboration tools (IRC server, mailing lists, Request Tracker).
  - Designed and built new server platform for new business entity.
- Managed 100+ Linux servers serving 150+ high-traffic websites.
  - Built automation and configuration management systems using Cobbler and Puppet.
  - Migrated ops and development teams from CVS to SVN.
  - Built and improved deployment utilities cutting down on deployment time.
  - Built proper DEV/QA/Staging/Production environments using KVM, Vmware, and Xen virtualization.
  - Built and improved continuous integration testing and monitoring systems.
  - Managed public DNS infrastructure for 200+ domains.
- Built a new hardware architecture for a new version of our platform.
  - N+1 redundant MySQL cluster, F5 LTM Load Balancers, Mod\_Perl and Apache, and NetAPP Storage.

## **Additional Information**

- Open Source Projects:
  - [GitHub](#)<sup>7</sup>
  - [GitLab](#)<sup>8</sup>

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<sup>6</sup><http://blog.friocorte.com/2011/05/chain-loading-pxe-servers.html>

<sup>7</sup><https://github.com/goozbach/>

<sup>8</sup><https://gitlab.com/goozbach/>