

Experience

Staff DevOps Engineer at Lockheed Martin | King of Prussia, PA

Since August 2023

- Led an Agile organized team as Product Owner and Scrum Master on a high visibility program.
- Designed and deployed Kubernetes clusters on classified, air-gapped, resource constrained edge devices. Deployed internal applications to clusters in non-standard environments, taking advantage of specialized hardware.
- Architected an infrastructure baseline to improve automation, compliance, and stability and common tools for application tenants. This new baseline standardized configuration, streamlined deployment, and cut spend by 35%
- Contributed to multiple large-scale PaaS platforms which deploy Kubernetes & support applications to multiple clouds. Navigated gov. requirements and led an effort to develop an internal Kubernetes distribution.
- Maintained multiple cloud and on-prem Kubernetes clusters for dev and production for mission-critical applications

DevOps Engineer at greymatter.io | Remote from Greater Philadelphia Area

Jan 2022 – July 2023

- Contributed to design and implementation of greymatter, a service mesh designed to enhance reliability, security, and observability of applications. greymatter leverages envoy, is written in Go, and uses unique CUE based configuration.
- Architected and built an internal CI/CD platform to run natively in Kubernetes. Contributed to open-source projects to add features required for our pipelines. Reduced number of developer incidents to less than ¼ and decreased pipeline runtime by an order of magnitude. Implemented modern CI/CD designs such as ephemeral jobs, runner auto-scaling, and automated secrets.
- Extensive experience with Kubernetes, Ansible and Terraform to set up and configure clusters, deploying Greymatter alongside customer applications, deploying security policies, and troubleshooting production issues.

Software Engineer at Lockheed Martin | King of Prussia, PA

May 2018-Dec 2021

- Managed a Linux based development environment, ensuring high uptime, and security in an airgap.
- Implemented and maintained a GitLab instance, providing developers with a centralized code platform with CI/CD pipelines for multiple applications, on multiple platforms, streamlining the development process significantly.
- Architected Kubernetes and Docker implementations and designed hardened containers.
- Implemented DoD Risk Management Framework for OS hardening and security controls, automated with Ansible.
- Engineering work with Java, C++, GNU Radio on a large, micro-service driven, command and control application.

Current Project Portfolio **Github:** <https://github.com/clbx>

HomeLab – Production Services

A continuous project in learning new technologies and keeping up to date. “JuiceCloud” is a home datacenter running a bare-metal Kubernetes cluster.. JuiceCloud uses Talos Linux and is a true production cluster managed by GitOps with security tools, and observability stack, automation tools, secrets management, and more.

Kubernetes Tools and Plugins

While working with Kubernetes I built a few plugins and tools to solve problems I encountered.

- [kubectl-browse-pvc](#) is a kubectl plugin to browse an unbound PVC from the command line. Available on Krew.
- **BuildKite on Kubernetes:** Contributed to a [plugin](#) to run BuildKite jobs in Kubernetes and the [official provider](#).

Open-Source Contributions: I contribute back to open-source projects often, check out my GitHub page.

Skills & Abilities

Languages: Go, Bash, Python, C++, C, C#, Java **Clouds:** AWS, Azure, GCP **Platforms:** Kubernetes, OpenShift, Docker, Linux

Tools/Software: Git, Gitlab, Terraform, Ansible, Pulumi, Helm, Prometheus, SQL & NoSQL Databases, Vault, Vuln Scanning and Hardening, Rancher, CNCF Tools.

Concepts & Technologies: Infra as Code, GitOps, Agile, CI/CD, Service Mesh, System Administration, Development Pipelines, Service Mesh. Networking Concepts (DNS, DHCP, TCP/IP), Virtualization (VMWare, KVM).
... and more!

Education & Certifications

Georgia Institute of Technology | Master of Science

3.60 GPA

- M.S. Computer Science. Computational Systems Specialization

Elizabethtown College | Bachelor of Science

3.42 GPA

- B.S. Computer Engineering, B.S. Computer Science

Certifications: CompTIA Security+

Top Secret Department of Defense Security Clearance