

## Experience

### Senior 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.
- Introduced CNCF tools to the environment to improve automation, compliance, and stability.
- Contributed to a large-scale PaaS platform which deploys Kubernetes & support applications to OpenStack and AWS.
- Maintained 12 Kubernetes clusters, of varying criticality levels, for 100+ developers and users.

### 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, custom, Kubernetes cluster. Fully powered by GitOps, I use JuiceCloud to run production services for family and friends, leveraging tools like ArgoCD, Kyverno, Renovate, Prometheus, and Trivy, to automate the deployment, maintenance, monitoring, and security of the cluster

### 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.
- [kube-port-forward-controller](#) automatically opens ports on a router using annotations on a service. WIP.
- **BuildKite on Kubernetes**: Contributed to a [plugin](#) to run BuildKite jobs in Kubernetes and the [official provider](#).

## 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).

## 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**