

Summary

Senior DevOps Engineer and full-stack technologist with 10+ years of experience modernizing infrastructure, automating deployments, and securing hybrid cloud environments. Recognized for bridging engineering and operations, driving cost savings, and enabling scalable, reliable systems. Brings a unique background as a former paramedic/firefighter, applying incident-response discipline to technology teams.

Certifications

- AWS Solutions Architect - Associate (Expired)
- AWS Security - Specialty
- AZ-900 Azure Fundamentals
- SentinelOne Administrator
- GitLab Solutions Architect Core
- *Currently pursuing Certified Kubernetes Administrator (CKA) and CISSP*

Experience

Sr. DevOps Engineer

*Mar 2023-May 2025**SiteWorx Software, LLC**Boston, MA / Remote*

- One of 8 employees in downsized, employee-owned org
- Served as primary on-call engineer for 24x7 production systems, leading incident response during critical outages and ensuring recovery under pressure.
- Drove cost-optimization initiative by designing and implementing a Graviton adoption strategy, including ARM cross-compilation pipeline changes, positioning the organization for significant OPEX savings.
- Prototyped AI-driven knowledge/support bot leveraging retrieval-augmented generation, validating feasibility of centralizing institutional knowledge across engineering, support, and customer success teams.
- Implemented federation between Google Workspace and AWS Identity Center, aligning identity management with least-privilege and centralized access control best practices.
- Managed enterprise applications portfolio (Google Workspaces, Slack, etc.), streamlining user provisioning and enforcing security/compliance standards.
- Reduced operational overhead and physical infrastructure costs by migrating CAD to a cloud workstation and retiring unused VPN/servers, aligning environment with zero-trust access principles.
- Configured AWS CloudWatch and EventBridge alerts with Slack integration for critical security events, including root account activity, new IAM credentials, and configuration changes.
- Deployed Wazuh SIEM and integrated with AWS CloudTrail, CloudWatch, and SecurityHub to provide better observability into security issues.
- Conducted periodic IAM and resource posture reviews.
- Implemented immutable logging with S3, CloudTrail, and Object Lock.
- Eliminated long-lived SSH credentials by implementing EC2 Instance Connect with just-in-time IP authorization through the internal CLI, improving auditability and compliance posture.

Sr. DevOps Engineer*DigitalLumens, Inc.**Boston, MA / Singapore**Sept 2021-Mar 2023*

- Delivered secure, modern authentication by adding SAML and OIDC-based SSO for multi-tenant application, reducing friction for end-users and simplifying account management.
- Built custom RBAC system leveraging Ory to enforce least-privilege access in multi-tenant application with client-defined policies modeled on AWS IAM.
- Partnered with backend engineering to redesign event system around Apache Pulsar; provisioned and managed Kubernetes-based Pulsar cluster to support production workloads.
- Fostered DevOps culture by building monitoring, alerting, and troubleshooting practices that empowered developers to resolve issues quickly.
- Automated SBOM generation and vulnerability scanning in CI/CD using Trivy and Grype, improving software supply chain security and compliance posture.

Sr. DevOps Engineer*DigitalLumens / OSRAM**Boston, MA / Munich, Germany**May 2019-Sept 2021*

- Owned release management for clustered application stack, coordinating deployments across multiple regions and streamlining deployment process.
- Configured AWS accounts in alignment with security best practices, enabling Security Hub, GuardDuty, and organization-wide compliance baselines.
- Engineered and maintained complex PKI workflows: managed DigiCert/AWS wildcards, issued per-cluster CA certs, and integrated manufacturing-provisioned IoT device certs into deployment bundles.
- Spearheaded migration from ad-hoc AWS environment to Terraform-driven IaC, standardizing infrastructure lifecycle management and baking in granular, least-privilege security groups and IAM roles.
- Implemented multi-region, multi-VPC strategy (North America & Europe) balancing performance SLAs with evolving data residency and GDPR requirements and ensuring network isolation between workloads.
- Facilitated external white-box penetration test by creating the test environment and coordinating with pentesters, as well as remediating findings across code, firewall, and AWS infrastructure.
- Directed the migration from ad-hoc AMI creation to a managed image lifecycle with EC2 Image Builder and CIS Benchmarks, improving audibility and compliance readiness.
- Installed and configured fail2ban, tripwire, samhain, and AIDE via image builder process
- Replaced SSH password authentication with SSH keys (added via Ansible), then EC2 Instance Connect.
- Migrated deploy secrets from Ansible Vault to AWS SSM Parameter Store.

DevOps Technician*Entic, Inc. (now Aquicore)**Boston, MA / Miami, FL**Dec 2017-May 2019*

- Led 3-person DevOps team split between Boston and Miami
- Introduced containerization strategy (Docker/Kubernetes) and drove adoption across internal applications, modernizing infrastructure and deployment practices.
- Established Infrastructure-as-Code discipline (Terraform, Packer, Ansible)
- Automated Kubernetes cluster lifecycle with Jenkins/KOPS and developed Helm charts for internal applications, standardizing deployments and reducing operational overhead.
- Replaced DIY app-level authentication with Keycloak + Kong, ensuring proper password handling and RBAC
- Championed security and reliability improvements by extending open-source tooling (Anchore, cfssl, external-dns, etc.), contributing upstream fixes and enhancements.
- Contributed fixes and enhancements to multiple upstream OSS projects (Cloudflare cfssl, Anchore Engine, external-dns, k8s-aws-efs, etc.), improving functionality and ensuring compatibility with production environments.
- Managed enterprise applications portfolio (O365, Slack, etc.), streamlining user provisioning and enforcing security/compliance standards.
- Reduced patching overhead and deployment risk by maintaining secure, up-to-date base images integrated into CI/CD workflows.
- Introduced centralized JupyterLab environment for engineering and data science teams.

DevOps Engineer*Survey Sampling International**Shelton, CT**May 2017-Dec 2017*

- Reduced annual licensing costs by over \$135,000 through infrastructure modernization: migrated 700-node Puppet Enterprise to Foreman + Puppet CE, and architected a HA ShinyProxy environment (~100 apps / 200 users) to replace Shiny Server Pro/RStudio Connect.
- Established Python-based development standards and CI/CD practices (PyEnv, Docker, TeamCity, Nexus), enabling test-driven development and reproducible builds across platforms.
- Automated TeamCity master backup/restore workflows with Ansible, Python, and AWS S3, ensuring resilience of critical CI/CD infrastructure.
- Consolidated utility scripts into a versioned Python module with CI/CD pipeline to internal PyPI, improving maintainability and reliability of shared tooling.
- Optimized conjoint analysis application performance by porting from R to C++, enabling responsive web delivery.
- Contributed upstream fixes to open-source projects (ShinyProxy, etc.), improving cross-browser compatibility for customers.

Remote Paramedic*Independent Contractor**USA**July 2016-May 2017*

- Served as on-site medic and safety consultant for remote wind and solar farm projects, providing emergency medical response and injury prevention support.
- Trained worker-led Emergency Response Teams in CPR/first aid, tower rescue, and fire suppression; assisted Health, Safety, and Environment (HSE) teams with inspections, mitigations, and accident investigations.

Full-Stack Developer / DevOps Engineer*Clayton Kendall**Pittsburgh, PA**Sept 2014-July 2016*

- Centralized authentication by replacing app-level login with LDAP for employee/admin sites.
- Established CI/CD pipelines (GitLab CI, PHPUnit, JUnit) and integrated SonarQube for code quality enforcement.
- Refactored PHP and JavaScript to address deficiencies found by SonarQube.
- Standardized infrastructure with Puppet + Foreman and automated VM provisioning on XenServer.
- Introduced Docker/Kubernetes-era practices by automating deployments and managing configuration drift.
- Delivered site redesign and checkout flow improvements, integrating Facebook API and FedEx Office APIs for better delivery + customer service visibility.

Full-Stack Developer*Clayton Kendall**Pittsburgh, PA**Sept 2013-Sept 2014*

- Reduced TTFB from ~10s → ~2s and page load times with XHProf profiling, caching, and PageSpeed best practices.
- Migrated source control from SVN to Git; stood up and administered internal GitLab/GitLabCI servers.
- Expanded customer-facing features: drag-and-drop MySQL reporting interface, Google Merchant Center API, and responsive redesign of public-facing sites.
- Automated reporting and vendor price/quantity tracking with Python (Scrapy) + Redis.

Jr. Web Developer

Sept 2012–Sept 2013

Clayton Kendall

Pittsburgh, PA

- Built and maintained custom e-commerce applications for a promotional marketing company.
- Fixed client-reported bugs and improved admin interfaces with DataTables.
- Upgraded login systems with modern cryptography and password hashing while maintaining backward compatibility.

Firefighter/Paramedic/Rescue Technician

2004–2016

(Various)

Pittsburgh, PA

- Served in multiple organizations as firefighter, paramedic, rescue technician, and training officer.
- Certified: NRP, Wilderness EMT, HazMat Ops, NFPA 1006 Rescue Tech (Core + Vehicle/Machinery), OSHA 30, High-Angle Rescue, Confined Space Rescue, Structural Collapse Rescue
- EMS Instructor: Pennsylvania State EMS Educator; American Heart Association BLS, ACLS, PALS Instructor.
- Led PA VRSR certification effort; developed a PHP web app to manage compliance documentation and generate certification matrix – first professional software project.

EMS Instructor

Sept 2012–Sept 2013

Community College of Allegheny County

Pittsburgh, PA

- Taught courses ranging from community CPR/first aid and FEMA CERT to EMR, EMT-B, AEMT, and NRP.
- Served as lead instructor and co-coordinator for the college's first AEMT classes, developed curriculum and training before statewide protocols existed.
- Delivered classroom and skills instruction to both community members and professional responders, mentoring hundreds of students.

Education

I've been programming since middle school and learned by a combination of books, online courses, and trial-and-error. I subscribe to Coursera, PluralSight/AcloudGuru, and AWS Training, which I use as both regular continuing education and on-demand/just-in-time training. I've accumulated thousands of hours of training and am currently focusing on AI/ML, Cybersecurity, and Business courses.

Certificate, Paramedic

2007–2008

Community College of Allegheny County

Pittsburgh, PA

Diploma, RN

2006–2007

Western Pennsylvania Hospital School of Nursing

Pittsburgh, PA

- Withdrew to pursue Paramedic license instead

High School Diploma

2002–2006

North Hills High School

Pittsburgh, PA

- Graduated a semester early to gain clinical experience for nursing

Continuing Education

I subscribe to Coursera, Pluralsight/ACloudGuru, and AWS Training for both just-in-time/on-demand learning as well as more traditional, ongoing education. I'm currently taking courses in AI/ML, cybersecurity management, and general business.

Machine Learning

Stanford + DeepLearning.ai

- ✔ Supervised ML: Regression and Classification
- ✔ Advanced Learning Algorithms
- ✔ Unsupervised Learning, Recommenders, Reinforcement Learning

Cloud Computing Law

Queen Mary University of London

- ✔ Cloud Computing Law: Transactions
- ✔ Cloud Computing Law: Data Protection & Cybersecurity
- ✔ Cloud Computing Law: Law Enforcement, Competition, and Tax

Homeland Security & Cybersecurity

University of Colorado Boulder

- ✔ Homeland Security & Cybersecurity Connection
- ✔ Cybersecurity Policy for Water and Electricity Infrastructures
- ✔ Cybersecurity Policy for Aviation and Internet Infrastructures
- ✔ Homeland Security and Cybersecurity Future

Intuit Academy - Bookkeeping

Intuit

- ✔ Bookkeeping Basics
- ✔ Assets in Accounting
- ✔ Liabilities and Equity in Accounting
- ✔ Financial Statement Analysis

AI for Cybersecurity

Johns Hopkins University

- ✔ Intro to AI for Cybersecurity
- ✔ Advanced Malware and Network Anomaly Detection
- ✔ Securing AI and Advanced Topics

Mergers and Acquisitions

University of Illinois

- Finance of M&A: Valuation and Pricing
- Finance of M&A: Designing an M&A Deal
- Accounting for M&A: Foundations
- Accounting for M&A: Advanced Topics
- Investment Banking: Financial Analysis & Valuation
- Investment Banking: M&A and IPOs

Cyber Security - Technology and Governance

University of London

- ✔ Introduction to Computer Security
- ✔ Introduction to Network Security
- ✔ Security Management and Governance
- ✔ Cybercrime

Explainable AI (XAI)

Duke University

- ✔ Developing Explainable AI (XAI)
- ✔ Interpretable Machine Learning
- ✔ Explainable Machine Learning (XAI)

Regulatory Compliance

University of Pennsylvania

- ✔ What is compliance?
- ✔ Effective Compliance Programs
- ✔ Privacy Law and Data Protection
- ✔ What is Corruption: Anti-Corruption and Compliance

Security: A Comprehensive Approach

Illinois Tech

- ✔ Hardware and Operating System Foundations III
- ✔ Cloud Computing Security - Master's
- ✔ Cloud: Infrastructure as a Service - Master's

Business Fundamentals

Wharton

- ✔ Intro to Marketing
- ✔ Intro to Financial Accounting
- ✔ Managing Social and Human Capital
- Intro to Corporate Finance
- Intro to Operations Management
- Wharton Business Foundations Capstone

Deep Learning for Healthcare

University of Illinois

- ✔ Health Data Science Foundations
- ✔ Deep Learning Methods for Healthcare
- ✔ Advanced Deep Learning Methods for Healthcare