

Alexander Foley

Marlton, NJ - alexandergfoley@gmail.com - (609) 694-6252



SUMMARY

Experienced Development and Platform Engineering Executive with over 10 years of programming experience and a robust background in building DevOps platforms, designing scalable backend systems, and managing multi-cloud environments. Excels in bringing an automation-based approach to the hardest problems.

SKILLS

Cloud Platforms:

- AWS (4+ years)
- GCP (4+ years)
- Digital Ocean (4+ years)

Databases:

- Postgres (4+ years)
- MySQL (4+ years)
- MariaDB (4+ years)

Configuration:

- Terraform (6+ years)
- Ansible (6+ years)
- Packer (6+ years)
- Vagrant (6+ years)
- Helm (4+ years)

Container:

- Kubernetes (4+ years)
- Docker (6+ years)

Languages:

- Python (8+ years)
- Java (8+ years)
- GoLang (4+ years)
- Kotlin (4+ years)

CI/CD Utilities:

- Jenkins (4+ years)
- HashiVault (4+ years)
- HashiConsul (4+ years)
- SonarQube (4+ years)
- JFrog Artifactory (4+ years)

WORK EXPERIENCE

Sporttrade, Philadelphia, PA - VP Engineering Operations

Jan 2023 - Present

- Managed site reliability, quality assurance, and software engineering teams to guarantee that Sporttrade maintained 99.999% uptime and that features were delivered in within 2-week sprint periods

- Reduced overall cloud costs by 30% by utilizing right-sizing methodologies, Kubernetes node autoscaling, Kubernetes horizontal pod autoscaling, and other cloud best practices
- Designed and architected scalable microservice applications to ensure that Sporttrade applications provided low-latency trading experiences to users at scale
- Automated the metric collection, monitoring, and alerting of key services to assure high uptimes using Java, Python, and Datadog
- Implemented software development lifecycle policies such as change management, internal controls, continuous integration/deployment, and post-mortem reviews
- Spearheaded continuous integration and continuous development (CI/CD) initiatives to ensure that Sporttrade could release code multiple times per day in an efficient and automated manner

Sporttrade, Philadelphia, PA - Lead Site Reliability Engineer

Sep 2020 - Jan 2023

- Developed Sporttrade microservices with Python, Kava, and Kotlin and deployed them using Kubernetes and Helm
- Architected, built, and managed Sporttrade's production on-premise infrastructure, which spanned multiple states and data centers, using Terraform, Ansible, and Digital Rebar
- Administered multiple Kubernetes clusters in both GCP (GKE) and AWS (EKS) to ensure that versions were up to date and there were no control plane issues
- Administered multiple PostgreSQL instances in CloudSQL (GCP), RDS (AWS), and self-hosted environments to ensure that versions were up to date and the databases were in steady states
- Architected, built, and managed Sporttrade's production cloud infrastructure, which spanned multiple clouds (AWS/GCP), using Terraform, Ansible, and Python
- Managed multiple Kafka clusters across various environment using Terraform and Ansible
- Automated the build process of both cloud images (AWS AMI's/GCP OS Images) and lower-level Linux RAM disks using Packer, Vagrant, and Ansible
- Implemented the automated metric collection, monitoring, and alerting of Sporttrade infrastructure components (cloud and on-premise) using DataDog
- Built and deployed Sporttrade's DevOps stack using Docker Swarm in AWS which consisted of Jenkins, Artifactory, Sonarqube, HashiVault, and HashiConsul
- Automated the mitigation of thousands of possible threats by enforcing proper security postures at our CDN (Cloudflare), cloud (AWS/GCP), firewall (Fortigate), and OS (Debian) levels
- Lowered CI build times by 30% by parallelizing Jenkins pipelines and implementing remote-caching systems with Gradle (S3 Cache), Python-Pants (Bazel Remote Cache), and Docker (S3 Cache)
- Published multiple automation utilities for various teams and tasks written in a variety of languages (Python, GoLang, Groovy, Java)
- Administered Jenkins with IaC utilities such as Jenkins Configuration as Code (JCASC) and Jenkins Job Builder (JJB)

Innovative Defense Technologies, Mt. Laurel, NJ - Systems Engineer

Jul 2019 – Sep 2020

- Developed DevOps pipelines and frameworks to automate development, testing, and deployment of software using Jenkins, Groovy, and the GitLab API
- Hardened software applications against SQL-Injection and XSS attacks in order to comply with DOD standards
- Performed automated penetration testing on enterprise software using frameworks such as Metasploit and SQLMap
- Designed and implemented the RESTful interface, service, and persistence layers of new applications in Java
- Aided in the integration of virtualized weapons systems into enterprise software
- Automated the deployment of secure cloud-based infrastructure using tools such as Terraform, Ansible, and Docker

Drexel Theoretical And Applied Mechanics Lab, Philadelphia, PA - *Software Engineer*

Oct 2018 – Jul 2019

- Produced python modules using OpenCV and Tensorflow to perform image processing such as image stitching, edge detection, and object detection for use on drone-captured data
- Integrated the produced python modules into a user-friendly dashboard created using python and GTK
- Created web-based analytics dashboards using ReactJS

Lockheed Martin, Mt. Laurel, NJ - *Systems and Simulations Engineer*

Apr 2018 – Sep 2018

- Supported multiple AEGIS teams and their efforts by providing simulator support and maintenance
- Aided in the development of advanced algorithms for various studies
- Implemented new requirements and complex algorithms into the simulations
- Participated in Agile methodology to ensure proper project management
- Constructed software automation tools to enhance employee efficiency

ASRC Federal Defense and Aerospace, Greenbelt, MD - *Simulations Engineer*

Apr 2017 – Sep 2017

- Constructed software tools to automate, simplify, and enhance work for employees using python
- Created and analyzed simulations for the NASA-NOAA GOES-R and GOES-S Satellites
- Regulated the various satellite simulators to ensure the integrity of each, whether it be hardware or software
- Maintained the various databases to ensure they were identical to the databases on-board the spacecraft

EDUCATION

Syracuse University, Syracuse, NY - *Masters of Science in Computer Science*

January 2022 - Present

Cumulative GPA: 4.0

Drexel University, Philadelphia, PA - *Bachelors of Science in Mechanical Engineering*

September 2014 - June 2019

Cumulative GPA: 3.83