Sean Gatewood

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Summary

Senior-leaning DevOps / Platform Engineer with a focus on the **dev** side of DevOps. I build scalable, reproducible, and reliable production environments with Kubernetes ecosystems, Infrastructure as Code, and CI/CD pipelines. I bring strong development skills to the infra world, elevating production environments with seamless automation, custom microservices, and even proactive application-level fixes.

Experience

DevOps Engineer, Digital Asset (New York, NY / remote) April 2023 - present

- Developed infrastructure and automation around critical kubernetes services, applying SRE practices to ensure reliability and minimize operational toil.
- Played an instrumental role in the launch of our blockchain network by owning the deployment and management of a core validator node.
- Utilized Terraform, Jsonnet, Bash, and Helm to automate deployments in a flexible manner, enabling the success of more than 70 weekly upgrades.
- Orchestrated a complex blockchain migration process in the deployment automation, reducing required live-on-zoom code changes down to 0.
- Migrated our node's cluster across GCP regions with only 2 minutes of downtime.
- Instrumented monitoring/alerts with DataDog to maintain 99.5% uptime and tune our configuration to minimize cloud costs.
- Communicated deployment designs with partner companies, helping them overcome similar hurdles and accelerating the launch of our blockchain network.
- Mentored 2 teammates on how the validator deployment worked so they could contribute to the codebase and participate in support rotations.
- Authored a Prometheus metrics exporter in Go, providing a programmatic framework for custom metrics. Closed 8 critical gaps in production observability.
- Authored a Kubernetes operator in Go to streamline our backup/restore process, eliminating operational tasks on a product entering maintenance mode.
- Migrated Kubernetes manifests from a legacy system to public helm charts, allowing external customers to deploy our product.
- Orchestrated our internal helm installations using Helmfile to reduce our deployment process from 35 commands to 1 and pave the way for using GitOps.
- Built isolated blockchain test environments in both k3d (for local dev) and vClusters, allowing developers to effortlessly spin up fully independent networks.
- Developed CI/CD pipelines using Google Cloud Build and CircleCI.
- Participated in on-call rotations, triaging a multitude of production alerts and maintaining the reliability of our services.

Software Engineer II, Appian Corporation (McLean, VA / remote) August 2020 - April 2023

- Worked on a Development Experience team that owned a variety of tooling and infrastructure to accelerate and modernize development workflows.
- Contributed to a remote development platform allowing devs to build/develop/test on dedicated EC2s, improving cycle time and stability by at least 50%.
- Built a Gitlab pipeline to precook warm builds that devs could take and use instantly, reducing startup time from ~12m to ~5s for many common test cases.
- Architected a separate mode using Mutagen to enable bi-directional file syncing and enhance stability.
- Deployed a LaunchDarkly relay proxy in Kubernetes, satisfying a FedRAMP security requirement for our modern feature toggles initiative.
- Contributed to a team effort to integrate LaunchDarkly with a legacy product, including developing our own Java client.
- Regularly initiated & led architectural design discussions, and spiked a wide variety of prototypes.
- Regularly unblocked developers by assisting in troubleshooting technical issues, improving our local build stability.
- Utilized an ELK stack to collect diagnostics from our development tool, greatly enhancing visibility into command utilization and user flows.
- Enhanced our documentation by injecting Matplotlib graphs (refreshed daily via Gitlab deployment pipeline) to show metrics on our codebase over time.
- Treasured high code quality standards and contributed to our data-driven goal to lead the department in code quality.
- Mentored two interns as a Summer Intern Manager, meeting with them weekly to optimize their internship experience.
- Gained a high standard for usability that continues to shape my tooling designs today.

Teaching Assistant - Introduction to Programming, University of Virginia (Charlottesville, VA) Fall 2017 - May 2020

- Assisted hundreds of students with introductory programming concepts in Python.
- Created review videos that have received over 13,000 views.
- Helped manage the course as one of four "Head TAs."

Selected Skills

Languages Python, Bash, Go, Java, TypeScript, C++	**Kubernetes** Helm, Helmfile, FluxCD, Istio, Custom Operators	**Monitoring** Grafana, Prometheus, Datadog
Cloud Platforms GCP, AWS	**Infrastructure As Code** Terraform, Pulumi	**CI / CD** GitLab, Github Actions, CircleCI, GCB, Jenkins
Cloud Resources ("I've terraformed it!") Compute (GKE Cluster, Node Pools, Persistent Disks, Snapshot Schedules, VMs), Networking (VPC, Subnet, Cloud NAT, L7 Application Load Balancer, MCI, Cloud DNS, Google-Managed Certificates), Security (IAM, RBAC, Secrets Manager, Cloud Armor, Service Accounts, Workload Identity)		**Other** Docker, Docker Compose, SQL, LaunchDarkly, MermaidJS, Nix, Jsonnet, Auth0, Kotlin, Gradle, Linux, jq, Justfile, Git, GitHub

Side Projects

- **This Resume:** Written in YAML and templated into the document you are reading. :-)
- **JobDeployment controller:** Spiked an idea I had using kubebuilder to solve a DX problem with deploying Job objects in helm charts.
- **gcloud-fzf:** Wrote a Go CLI I wanted. The interesting part is I actually distributed it via homebrew.
- **Portfolio site:** Used an old Jekyll theme I liked to serve as my website. Includes some interesting dark mode & MermaidJS hacks.

Education

University of Virginia (May 2020) Rodman Scholar, Raven Society

- B.S. Computer Science. GPA 3.95

Notable Courses: Computer Graphics, Algorithms, Introduction to Cybersecurity, Software Testing