Gerald Spencer

Driving Engineering Innovation:
A Strategic Leader in Crafting High-Reliability Distributed
Software **contact@geraldhspencer.com** • +1-408-623-9465

� Experience

10.2023 - Present **Cruise** - Staff Software Engineer

In my current role as Staff Software Engineer, I am at the forefront of designing and building a cutting-edge build analytics platform. This platform is focused on optimizing build times Cruise's large monolithic repository and attributing costs effectively across the build graph. Key contributions and ongoing initiatives include:

- Architecting a comprehensive analytics solution that identifies bottlenecks and inefficiencies in the build graph, targeting a reduction in overall build time by up to 30%.
- Implementing a cost attribution model to accurately distribute build costs across teams and projects, enhancing resource allocation and budgeting processes.
- Developing a real-time monitoring system that tracks build performance metrics, enabling proactive optimization strategies.
- Collaborating closely with development teams to tailor the platform's capabilities to specific needs, ensuring a flexible and user-centric design.

2022 - 10.2023 **Cruise** - Staff Site Reliability Engineer Technical Lead Manager (TLM)

As Staff Site Reliability Engineer TLM at Cruise, I spearheaded a team of six in designing, implementing and operating Cruise's declarative release and deployment platform. Key achievements include:

- Developed and implemented an advanced release attestation packaging system, reducing deployment times by 40%.
- Established a deployment pipeline governance framework, enhancing deployment accuracy by 30% and compliance by 25%.
- Integrated real-time monitoring and automated quality checks.
- Launched a centralized user interface, boosting deployment efficiency by 35%.
- Created command-line tools, accelerating deployment actions by 50%.

2021 - 2022 **Skydio** - Staff Engineer - Infrastructure/Site Reliability

At Skydio, I led a team in transforming the enterprise autonomous drone platform's infrastructure, supporting 200 engineers. Key accomplishments include:

- Migrated legacy build system from custom cmake to bazel.
- Established an effective Incident Management process and on-call systems, enhancing service reliability.
- Integrated Kubernetes into the development lifecycle, optimizing deployment and application management.
- Transitioned to manual legacy deployments to automated container-based deployments, reducing deployment time from 2 hours to 15 minutes.
- Upgraded Continuous Integration system to handle 5000 daily builds across 2500 ephemeral workers, supported by a custom Python-based management platform.

2013 - 2021 **Strateos** - Director of Infrastructure

At Strateos, I spearheaded the expansion and modernization of robotic cloud drug discovery labs across two continents, growing from one to four facilities. My notable contributions include:

- Collaborated with the Product team to create an infrastructure roadmap for growth.
- Achieved a 13x reduction in build times by overhauling legacy build systems, accelerating feature development.
- Initiated a multi-account AWS configuration using Terraform, enhancing workload transfer across regions.
- Led teams in transitioning CI systems to a cloud-native, elastic framework and automating CI/CD deployments to Kubernetes, improving deployment efficiency.
- Implemented a comprehensive cloud-native observability platform and established SSO via Okta for critical systems.
- Designed and implemented a global transit network, optimizing multi-region, multi-cluster Kubernetes setups.
- Provided mentorship in architecture, CI/CD, infrastructure, and networking, advancing Strateos's digital cloud lab technology.

Technical Experience

- **Build systems**: Bazel, CMake, Gradle, Lerna, Maven, Poetry, PantsBuild
- **CI/CD**: ArgoCD, AWS CodePipeline, Buildkite, CircleCI, Jenkins, Github Actions, GoCD, Tekton, Travis
- **Cloud Infrastructure**: All things compute, networking, storage, security, AI/ML related to AWS or GCP
- **Configuration Management**: Ansible, Puppet, Terraform
- **Containers/Micro-services**: Docker, ECS, jib, Kubernetes, Lambda, KNative, Kubeless
- **Edge Computing**: Akri, Balena Cloud, ioFog, AWS Greengrass, AWS IOT Core
- **Identity Management**: Active Directory, Okta
- **Languages**: Bash, Python, Java, Go, Javascript, .Net, Node, Python, Scala, Typescript
- **Observability**: Datadog, ELK, Grafana, Prometheus, Sumologic, Splunk
- **Service Mesh**: Consul, Istio, LinkerD

Education

BSc, Mechanical Engineering W/ USCG License

- *California Maritime Academy (Vallejo, CA)*
- *Licensed United State Coast Guard 3rd Assistant Engineer*