

# Gerald Spencer

Multi-dimensional engineering leader passionate about:  
Culture Building, Observability, Reliability and Scalability  
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## Experience

**2022 - Present**

### **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.

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## Technical Experience

### Software/System Design

Production ready systems should be modular, composable, reliable and operation on the principle of least surprise.

Extensive experience with the following:

- **Build systems:** Bazel, CMake, Gradle, Lerna, Maven, Tox, Poetry
- **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
- **Development Environments:** AWS Cloud9, Docker, Eclipse Che, Gitpod, IntelliJ, Vagrant
- **Edge Computing:** Akri, Balena Cloud, ioFog, AWS Greengrass, AWS IOT Core
- **Identity Management:** Active Directory, Okta
- **IT/Networking:** Managed 3Scan's AS, BGP peering with multiple ISPs and AWS. Cisco/JunoOS you name it!
- **Languages:** Bash, Python, Java, Go, Javascript, .Net, Node, Python, Scala, Typescript
- **Observability:** ELK, Grafana, Prometheus, Sumologic, Splunk
- **Operating Systems:** At home in any flavor of linux, MacOS and windows
- **Service Mesh:** Consul, Istio, Linkerd

### Engineering Management

Engineering is fundamentally a creative task, and the job of a strong Leader is to maximize people's ability to get the thing they want to do done.

- **Agile methodologies:** Applied to both software and hardware
- **Project management:** From gantt charts and QFDs to task management, OKRs and KPIs
- The customer experience is key, dog-fooding is a must
- Have overseen complex multi-disciplinary teams from 2 to 15 engineers
- Deeply enjoy seeding an engineering culture that will meet the future organization needs

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## Education

### BSc, Mechanical Engineering W/ USCG License

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

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