

Gerald Spencer

Multi-dimensional engineering leader passionate about:
Automation, CI/CD, Community Building, Devops, Kubernetes and Networking

Education

- 2010-2014** **BSc, Mechanical Engineering W/ USCG License**
California Maritime Academy (Vallejo, CA)
Licensed United State Coast Guard 3rd Assistant Engineer

Experience

- 2019 - Present** **Strateos - Director of Infrastructure**
Facilitate designing, developing, implementing and operating the robotic drug discovery labs of the future.
- Drove the Eng.Org's impact by building community, providing a common voice, purpose and thinking beyond immediate responsibility
 - Shifted operational mindsets from reactive to proactive by bridging legacy silo'd teams
 - Actively worked with Product to strategically develop the Eng.Org's infrastructure roadmap to meet future growth targets
 - Lead multi-disciplinary teams in converting legacy monolithic CI system(s) to a modern cloud native elastic CI/CD system
 - Lead an SRE team in shifting manual legacy bare metal deployments to fully automated CI/CD deployments to Kubernetes
 - Provided mentorship and training across the teams with respect to: evolutionary architecture and infrastructure
- 2015 - Present** **Flux Foundation - Lead technologist**
A small arts collective that builds large art, which is shown at Burning man and numerous festivals around the country
- 2013 - 2019** **3Scan - Director of Production Engineering**
Oversaw a multi-disciplinary team of 15 - from hardware to software engineers, and biologists to product specialists - to develop a high-resolution/high-throughput 3D medical imaging system.
- Lead a team of software engineers to develop a system capable of ingesting 24GB/s of imagery
 - Merged a facility with the AWS cloud by executing a build out with 40Gbps of leased fiber from AWS(us-west-2) into downtown SF

- Engineering project management from ideation to on-going maintenance
- Implemented Agile methodologies for both hardware and software products

10/2018 - 9/2019 The Folly - Electrical and Lighting lead

- Development of structure's power distribution and electrical layout
- Exterior and interior lighting design

1/2018 - 9/2018 Temple Galaxia - Project Manager | Lighting lead

- Engineering project management between 3 timezones
- Oversaw a crew of 7 individuals from electrical engineers to artists
- Development of structures electrical schematic to CA Title 24 standards
- Lighting design: Custom PCB circuit boards, manufacturing and layout
- Custom software architecture and compute hardware to control 1200 addressable incandescents light bulbs

1/2018 - 9/2018 Temple 2017 - Lighting lead

- Development of structures electrical schematic to CA Title 24 standards
- Automated lighting controls allowed hands-free operation during the event

1/2016 - 10/2016 Black Rock Lighthouse Service - Lighting lead

- Oversaw an electrical team of 3 individuals
- Development of structures electrical schematic to CA Title 24 standards
- Fire design: Custom fire effects protocol via GRPC, Linux and network installations
- Lighting design: Custom protocol for DMX over Ethernet to wirelessly modulate Color Kinetix

4/2011 - 4/2013 Taylor Collaboration - Engineering Intern:

Orthopedics bio-mechanical testing facility working with the medical industry to redesign and improve total knee and hip replacements

- Validated the improvement of a new method for a tibial tubercle osteotomy
- Designed a test setup to simulate humans striking their hip during falling in normal gait

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:** Bassel, Gradle, Lerna, Maven, Tox, Poetry
- **CI/CD:** ArgoCD, AWS CodePipeline, Buildkite, CircleCI, Jenkins, GoCD, 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, Docker Swarm, ECS, Kubernetes, Mesos, Lambda, Kubeless, Serverless
- **Development Environments:** AWS Cloud9, Docker, IntelliJ, Vagrant
- **IT/Networking:** Manage 3Scan's AS, BGP peering with multiple ISPs and AWS. Cisco/JunOS you name it!
- **Languages:** Bash, C, C++, Groovy, Java, Javascript, .Net, Node, Python, Scala, Typescript
- **Monitoring/Telemetry:** Centralized logging, Elk, Grafana, Graphite, Prometheus, Sumologic, Splunk
- **Operating Systems:** At home in any flavor of linux and windows
- **Testing:** Junit, PyTest, ScalaTest
- **Version Control:** Git, Github, Gitlab, Phabricator

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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