Karl Quinsland

Contact

- Website: https://karlquinsland.com
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Profiles

- GitHub - kquinsland
- LinkedIn - karlq

Summary

Seasoned SRE and SysAdmin with a knack for automation and systematization all facets of life. Serial skill acquirer in pursuit of a more automated and optimal life; I pickup, replace and augment skills as needed. At the end of the day, the software/tools/things/technology I'm responsible for should be reliable, performant and ideally put a smile on people's faces.

Work

Sr. DevOps Engineer, spree3d

> Versatile AWS and DevOps professional with a focus on optimizing cloud infrastructure, streamlining Machine Learning deployment on EKS, and enhancing observability and onboarding processes for greater operational efficiency.

2023-04-17 - Present

- Optimized AWS resource management by cleaning up abandoned resources, resulting in monthly cost savings of thousands of dollars.
- Containerized multiple Machine Learning and CUDA workloads for deployment on EKS.
- Contributed to the development of the LGTM Stack (Loki, Grafana, Tempo, and Mimir).
- Provided guidance on best practices for enhancing application and platform observability, and created customized dashboards to offer diverse insights into the system.
- Mentored the Machine Learning team in implementing production-grade improvements for Python applications, development tools, and workflows.
- Streamlined the onboarding process by documenting and automating various aspects.

Sr. Ops Engineer/SRE, Sprig

> In-house AWS specialist tasked with taming legacy Terraform, k8s configuration and general 'as-needed' tool development / process automation.

2022-04-01 - 2023-02-17

- Modernized legacy Terraform and consolidated infrastructure saving thousands of $/month in AWS costs.
- Architected and deployed highly scalable CI/CD pipe for both IaC (infrastructure as code) and Lambda functions cutting expensive dev time to provision traditional and EKS based infrastructure, manage networking/security resources.
- Wrote extensive documentation for - and provided training on - new IaC/tooling. Automated document generation for existing IaC.
- Introduced and consistently coached colleagues on standardized ADR (architecture design review) based approach to documenting and debating merits of architecture.
- Led efforts to eliminate nuisance pages and implement consistent incident management process leading to faster/cheaper recovery.
- Responsible for running bug bounty program, triage reports and prioritizing remediation work for internal teams.
- Performed security focused code and architecture review for new product features. In-house AWS specialist tasked with taming legacy Terraform, k8s configuration and general 'as-needed' tool development / process automation.
- Improved home-grown EKS deployment pipeline and tooling.

Sr. Ops Engineer/SRE, Kiddom

2020-10-01 - 2022-04-01

- Tool-smith: Wrote more than a few scripts/tools/lambda functions to automate everything from Cassandra cluster assembly to management of DNS entries and TLS Certificate provisioning to documentation generation.
- OSS contributor: new features and bug fixes merged into various Cassandra management tools and Terraform providers.
- Led efforts to increase observability into applications and infrastructure and build out a mature incident reporting and management apparatus.
- Overhauled IAM and introduced best practices for cross-account resource utilization... and managed it with Terraform.
- Brought IaC practices to as many things as possible including external services; onboarding new Eng. hires was done with a few PRs and tools like Atlantis did the heavy lifting.
- Developed extensive corpus of documentation around IaC driven processes as well as legacy infrastructure and it's replacement - both planned and implemented. First dedicated Ops/Infra/SRE hire. Taming unwieldy infrastructure, porting legacy Terraform, developing/modernizing tooling and practices and leading efforts to instrument all layers of the stack.
- Initiated the transition from legacy bare-metal /auto-scaled AMIs based architecture to an EKS based platform.

Sr. Production Engineer/SRE, Touchpoint Restaurant Innovations

2018-10-01 - 2020-04-01

- Tool-smith: Dozens of in-house tools some of which radically changed (read: streamlined and automated) how hardware was shipped to customers. Other tools developed as needed to rectify problems at hundreds of in-field deployments.
- Hashicorp evangelist. Terraform, Packer, Consul, Vault used/deployed to make for a largely immutable, smarter, more secure operating environment.
- Vocal advocate for the containerization of workloads whenever possible. Strong proponent of immutable infrastructure and declarative infrastructure as code.
- Tamer of Elastic Search (Open Distro for Elastic Search on Docker, specifically). Worked w/ Application Engineering side of the house on migration to ES7.
- Supervisor of in-field hardware; everything from instrumenting for prometheus and building Grafana dashboards to vetting OEM samples to reverse engineering troublesome firmware and proprietary APIs. equal parts troubleshooter, automation tooling engineer, AWS architect. Owned efforts to modernize, internalize, containerize various bits of core infrastructure.

Sr. SRE, DevOps evangelist, Eventbrite (via Ticketfly)

2017-09-01 - 2018-10-01

- Worked to revise how Eventbrite and Ticketfly respond to critical incidences.
- Wrote tooling to better link Vault to Eventbrite's central authentication flow.
- Modernization of existing Puppet manifests.
- Coached colleagues on networking in AWS and Terraform best practices.
- Created networking components to securely share data between EB and TF data lakes; extensive work w/ EB DataScience team to fine-tune performance. Support Ticketfly's systems and help Eventbrite build new tools and processes to give developers more insight into their systems and the organization more flexibility

Sr. SRE, DevOps Practitioner, Tools Engineer, Cloud former, Ticketfly

2015-01-01 - 2017-09-01

- Was 24x7 Tier 4 OnCall
- Rebuild a modern / skilled DevOps team.
- Significant tech-debt eradication, ancient stack archaeology, platform spelunking.
- Authored countless Chef cookbooks, ruby gems.
- SCALR server administrator.
- Mongo and MySQL dbe/a.
- Consult as an SRE and Architect for new apps and services.
- Successfully ran bare metal / data center exit & equipment disposition & data destruction efforts.
- Designed networking architecture for entirety of cloud deployment, negotiated and set up private fiber circuits, VPN tunnels and automated other security controls. Hired as in the in-house AWS Expert. Led the migration from dataccentre to AWS and drove the necessary infrastructure and application architecture changes needed to pull it off.

Associate Software Engineer, Acxiom

2014-02-01 - 2015-01-01

- Developed chef training / coached internal teams on migration to Chef.
- Built tooling to automate administration of Aditive software and better integrate it within Acxiom's AWS environments.
- Worked with colleagues in Asia to support and roll out Aditive software for Asian markets.
- SRE, Ops, Dev work for a variety of internal and external applications, some of which serve millions of requests every day. Principal support contact for all Aditive software. Integral Chef 'consultant'.

DevOps Engineer, Aditive

2013-07-01 - 2014-02-01

- Single handedly engineered and implemented growth/scale strategy for high demand web services.
- Responsible for most infrastructure maintenance, including upgrades to production appliances and live migrations to AWS/VPC from AWS/EC2 Classic.
- Designed and built a variety of deployment tools to aide under staffed development team with single-click / continuous deployment for testing and production environments. Equal parts Mongo and Vertica 5 DBA. Led development of software to automate build/deploy of Aditive software in A/B style. In-house Chef dev.

Education

UC, Merced - BS, Computer Science & Engineering

2009-08-01 - 2013-05-01

- GPA: Deans List, multiple semesters

Courses

- Computer Security
- Networking
- Computer Architecture
- Databases
- Algorithms

Awards

- Amateur Radio Operator from FCC on 2020-01-01
    - General Class
- Intermediate Vault Training from HashiCorp on 2016-09-01
    - Everything needed to deploy, run, integrate Vault

Skills

Programming Languages

- Python3: advanced
- golang: passable
- rust: new, liking a lot!
- php: rusty
- ruby: rusty
- C/++: hacky

Cloud Providers

- AWS: advanced / 10+ years experience.
- DigitalOcean: intermediate. 3+ Years experience.
- Google: passable

Containerization

- Docker: advanced
- kubernetes: advanced / 5+ years experience.

IaC/Ops Tools

- Terraform: advanced / 8+ years experience.
- Packer: advanced
- Consul: advanced
- Vault: advanced

General SRE/Ops/Admin

- Networking: duties ranging from setting up dedicated private circuits to troubleshooting latency to designed and automated VPC networking and associated network security controls
- troubleshooting: advanced+
- performance tuning: intermediate
- testing: intermediate

Languages

- Native in 🇺🇸 English
- No asombroso, suficiente in 🇪🇸 Spanish

Interests

- Fitness (avid gym rat, automated nutrition optimization, practitioner of various mindfulness techniques)
- Home/Personal Automation (built/hacked several IoT devices; see https://karlquinsland.com/tags/esphome)
- Networks & wireless systems (Licensed HAM (we're allowed to build / test our own wireless protocols), Passionate student of all techniques/protocols for linking systems together)

References

Provided on request