Lukas Karsten

Lead Site Reliability Engineer

About Me

I am a Lead Site Reliability Engineer (SRE) based in Dresden, Germany. In my current position managed the migration of my company's software from an on-premises infrastructure to the AWS cloud, running it as a cloud-native application while adhering to the standards for ISO27001 certification. Of course constantly improving in terms of availability, reliability and security.

Contact Information

Location: Dresden, DE

Skills & Expertise

Cloud & DevOps Engineering

AWS, K8s, EKS, Terraform, Ansible, AWS Parameter Store, Prometheus, Loki, Grafana, HC Vault, Docker, Nomad, Consul, Gitlab, Jenkins, Teamcity

Technologies & Frameworks

JBoss Application Server, Quarkus, Elasticsearch, Nginx, Traefik, Microservices, Postgres, MariaDB, Java, Golang, Cypress

Conceptual

System Design, ISO27001, Disaster Recovery, Security Standards, Cost Optimization, Cloud Migration, Scalability

Professional Experience

Lead Site Reliability Engineer at CE-CON GmbH

Jan 2023—Current

- Led the migration of B2B software from on-premise to a **multi-account AWS infrastructure**, improving scalability, maintainability, and enabling fully automated and consistent deployments using **IaC (Terraform)**.
- Migrated to orchestrated and containerized workloads using **Kubernetes (EKS)** to enhance workload distribution and fault tolerance.
- Implemented real-time monitoring and observability using the **PLG stack** (Promtail, Loki, Grafana), ensuring proactive issue detection and performance optimization.
- Enforced **ISO27001 security standards** in preparation for a BSI certification.
- Led the **Infrastructure Team**, coordinating efforts to deliver scalable, secure, and reliable solutions while driving best practices and team collaboration.
- Developed modular and reusable **Helm charts** to standardize and simplify the deployment of **microservices** across environments.
- Enabled reliable **event-driven communication** between microservices and improving system decoupling and scalability by implementing **ActiveMQ Artemis as a Message Broker**.
- Mentored **Junior Cloud Engineer**, fostering their professional growth and ensuring effective knowledge transfer on AWS, Kubernetes, and Terraform and general DevOps topics.
- Established high standards for **disaster recovery, dev/prod parity, consistency, predictability, and security** by adopting immutability and cloud-native design patterns.
- Maintained and streamlined configuration management for on-premise infrastructure and in-house installations using **Ansible**, reducing manual overhead.
- Designed and implemented **CI/CD pipelines** with TeamCity, accelerating delivery cycles and improving code quality.

Site Reliability Engineer at Startnext GmbH

May 2022—Dec 2022

- Ensured **high availability and scalability** of critical systems through expert **Linux administration**, **Ansible automation**, and **Hashicorp Packer image management**.
- Contributed to the transition of the infrastructure to a modern and **cloud native** environment using **Nomad** for workload orchestration and **Consul** for service discovery.
- Designed and implemented new **GitLab CI/CD pipelines**, accelerating development workflows and improving deployment efficiency.
- Developed and deployed **microservices using Golang**, enhancing system functionality and security.

Student Trainee – Site Reliabilty Engineering at Startnext GmbH

Aug 2021—May 2022

- Bachelor Thesis about: '**Transformation** of an existing application into a **cloud-native architecture**'

Student Trainee – Development and Testing at CE-CON GmbH

Jan 2023—Current

Tasks:

- Took the first steps in migrating a legacy **AngularJS application** to **Angular.io-**, establishing a foundation for enhanced performance, maintainability, and scalability.

- Developed **end-to-end tests** using **Cypress.io**, improving test coverage and ensuring application reliability.
- Implemented **Continuous Integration pipelines** with **Jenkins**, streamlining build and deployment processes.
- Created and optimized **Dockerfiles** for containerized environments, enabling consistent and portable application deployments.

Board Member at KUNE e.V, Bremen

June 2015—January 2024

The nonprofit organization KUNE e.V. supports refugees on the escape routes, at the borders of Europe and in refugee camps, accompanies their integration in Germany and assists in the establishment of self-help projects in the countries of origin.

Achievements

Bachelor of Science

University of Applied Sciences Bremen, Bremen

Bachelor of Science in Media Computer Sciences with an overall grade of 1.6.
Bachelor Thesis Title: **'Transformation of an existing application into a cloud-native architecture.'** Thesis grade: 1.2
During my studies, I completed several courses and compulsory elective modules. Some of them were:

- Cloud and Big Data
- information security
- Red Hat – Linux systemadministration
- programming paradigms