Mathias Rüdiger

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Skills and Competences

Programming Languages Go, Python, Java, Scala

My main programming languages are Go and Python. I am also exploring Rust. In the past I used Java and Scala. I am a huge proponent of TDD and the KISS principle.

Automation Terraform, Ansible, Salt

I'm a strong believer in automation and infrastructure as code, leveraging tools like Terraform, Ansible, and Salt to manage infrastructure effectively.

Kubernetes GKE, EKS, kops, Helm, Argo CD

Kubernetes has been a core part of my toolkit since 2016, and I'm proficient with various deployment and management tools (GKE, EKS, kops, Helm, Argo CD).

Cloud Environments Google Cloud, Amazon Web Services

My cloud experience spans both Google Cloud Platform (GCP) and Amazon Web Services (AWS), including hybrid cloud setups and migrations between the two.

Operating Systems NixOS, Debian, Arch

I've been working with Linux for over 20 years, currently focusing on NixOS and Debian, but I'm comfortable across a wide range of distributions.

CI/CD Github Actions, Gitlab CI, CircleCI, Travis CI

I've helped numerous teams implement CI/CD pipelines using platforms like GitHub Actions, GitLab CI, CircleCI, and Travis CI.

Monitoring/Logging Prometheus, Elasticsearch

I have experience running the Prometheus stack (*Grafana, Thanos and Alertmanager*) as well as the ELK stack (*Elasticsearch, Logstash, Kibana, Beats*).

Big Data Hadoop, Spark

My background also includes building data warehouses and ETL pipelines using Hadoop and Spark, with tools like Jupyter and Zeppelin for analysis.

Selected Work History

Senior Site Reliability Engineer   remote/Berlin
Justwatch   Apr. 2022 - Apr. 2025

- Migrated infrastructure management from Terragrunt to Terramate, improving maintainability.
- Implemented Argo CD for GitOps-based deployments.
- Reduced costs and increased control by migrating Elasticsearch from a hosted solution to an in-house Kubernetes operator-based deployment.
- Implemented and managed ingress setup using Terraform, ensuring secure and reliable access to applications in multiple Kubernetes clusters across multiple regions.
- Contributed to the migration of a self-hosted PostgreSQL database to Cloud SQL, improving scalability, availability, and disaster recovery capabilities.
- Replaced numerous legacy AWS setups with equivalent Google Cloud alternatives, optimizing cloud infrastructure and reducing complexity.

Interim head of infrastructure remote/Berlin

Justwatch Jan. 2021 - Sep. 2021

- Led infrastructure improvements, implementing Infrastructure as Code (IaC) using Terraform and Ansible for automated and consistent management.
- Enhanced security by deploying a Kubernetes-based Vault for ephemeral password management.
- Improved the scalability and reliability of the development platform by migrating GitLab to Kubernetes.
- Evaluated Argo CD to explore and recommend future GitOps adoption.
- Simplified and secured permission management by shifting from user-based to group-based credentials.

Freelance data devops engineer remote

Allianz Sep. 2020 - Dez. 2020

- Maintained critical data services, including Elasticsearch, Kafka, and Spark, deployed on Nomad.
- Contributed to the successful migration of a self-hosted Nomad cluster to Kubernetes on Azure.

Freelance devops engineer remote

Reply/Volkswagen AG Jun. 2019 - Apr. 2020

- Managed Kubernetes clusters for Volkswagen's "One Digital Platform."
- Developed EKS-based Kubernetes clusters using Terraform and AWS CodeDeploy for Volkswagen's "Basic Platform."

Freelance devops engineer remote/Berlin

Quandoo Jul. 2018 - Mai. 2019

- Designed, implemented, and operated Kubernetes clusters on AWS and GCP, supporting the company's global operations.
- Empowered development teams by providing Kubernetes training and best practices, enabling them to effectively deploy and manage their applications.
- Introduced Terraform to the operations team, streamlining infrastructure management and improving consistency.
- Supported Quandoo's migration to GitLab and GCP.
- Played a key role in Quandoo's migration to GitLab and Google Cloud Platform, ensuring a smooth transition and minimal disruption.
- Implemented and managed GitLab CI/CD pipelines for Kubernetes deployments.

Lead infrastructure/data engineer Berlin

fromAtoB Apr. 2016 - Jun. 2018

- Spearheaded the adoption of infrastructure automation tools (Salt, Ansible, Terraform), streamlining infrastructure management and improving consistency.
- Built a robust logging and monitoring system using ELK and Prometheus, enabling proactive identification and resolution of performance issues.
- Led the company's migration from self-hosted servers to Google Cloud Platform.
- Migrated core services to Kubernetes, improving application deployment and scaling capabilities.
- Drove the successful adoption of a DevOps culture, fostering collaboration and accelerating software delivery.
- Re-engineered the BI pipeline using Spark and Snowplow, establishing a scalable data warehouse on GCS and enabling powerful data analysis with Zeppelin and Jupyter.

Education

Diploma - Computer Science   x

Phillipps University Marburg   Oct. 2003 - Feb. 2012

Focus Distributed Systems

GPA A

  Fields of Specialization: distributed systems, operating systems and computer networks

  Practical Computer Science: 2D and 3D graphic programming

  Theoretical Computer Science: compiler construction and parallel programming

  Second Subject: mathematics (numerics, nonlinear optimization)

Diploma-Thesis "Effiziente Speicherung von Abbildern virtueller Maschinen"
      (Efficient storage of virtual machine images)

Publications

R. Schwarzkopf, M. Schmidt, M. Rüdiger and B. Freisleben. Efficient Storage of Virtual Machine Images.
ScienceCloud '12 Proceedings of the 3rd workshop on Scientific Cloud Computing, Pages 51-60,
New York, NY, USA, 2012. ACM.