

💡 Who Am I?

I am a highly skilled and versatile professional **Platform Engineer** with extensive experience in managing and setting up large **Kubernetes production clusters** across all major cloud providers. Expertise includes leveraging best practices such as **Test-Driven Development**, **Infrastructure as Code**, **Observability**, and **Zero Trust security**.

Adept at **implementing** and **optimizing infrastructure**, **automating processes**, and enhancing system reliability using advanced technologies like **Pulumi**, **AWS SDK/AWS CDK**, **ArgoCD** and **Python**. Proven track record in managing large-scale production deployments, improving operational efficiency, and ensuring **high system uptime** and **stability**. Strong background in developing scalable **cloud infrastructure**, creating robust **monitoring systems**, and streamlining incident response processes.

Exceptional **problem-solving abilities**, a proactive mindset, and a commitment to continuous improvement. Seeking new opportunities to leverage expertise in **cloud infrastructure management**, and system reliability to **deliver impactful solutions**.

📋 Skills

Areas of Expertise

Solution Design and Implementation | *Infrastructure Optimisation* | **System Reliability Engineering** | *AWS Cloud Services* | **Kubernetes Management** | *GitOps Implementation* | **Continuous Integration/Continuous Deployment (CI/CD)** | *Application Scalability* | **Monitoring, Logging and Metrics Aggregation** | *Python & Rust Development* | **Terraform, Terragrunt and Infrastructure as Code (IaC)** | *Docker and Containerisation* | **Helm Template Engineering** | *Prometheus and Grafana* | **Agile Methodologies** | *Process Automation* | **Test-Driven Development (TDD)** | *Requirements Gathering* | **Documentation Enhancement** | *Incident Response Management*

👤 Career Summary

💼 Platform Engineer Consultant - Freelance DevOps & Site Reliability Engineer

Remote 📍

🏢 PIVA CONSULTING

Mar. 2024 – Present 📅

- 🔧 Bridging the gap between development and operations teams, fostering seamless collaboration and communication.
- 🔧 Implementing efficient workflows and advocating for best practices, driving enhanced software delivery processes, resulting in improved system reliability and accelerated deployment cycles.

💼 Senior Platform Engineer

Remote 📍

🏢 ZF GROUP

Feb. 2022 – Aug. 2024 📅

- Deploys **centralised ArgoCD** across all AWS EKS accounts, standardising the **GitOps** approach and managing over 50 services per cluster, effectively handling approximately 1300 applications.
- Develops a **Rust application** to enable smooth connectivity for developers to private VPCs, EKS clusters, and endpoints, with supporting infrastructure deployed using **AWS CDK in Python**.
- Enhances the developer platform by creating and contributing to the **central API** for Cloud Platform Engineering's **Internal Developer Platform** and creating a command line tool, utilising **TDD methodology** to achieve a 99% test code coverage.
- Centralises **metrics aggregation** and Grafana dashboards **across 20 AWS EKS** clusters by rolling out **Thanos** for all **Kube-Prometheus-Stacks**, significantly enhancing the platforms' **observability** with monitoring and logging coverage.

🔧 Designed and rolled-out a **centralised metrics aggregator**, enabling real-time incident tracking and performance issue analysis, greatly improving **platform observability**, stability and operational efficiency.

🔧 Optimised **GitOps workflows**, automating manual tasks and **reducing team chore time by 80%**, enhancing deployment accuracy and team productivity through continuous integration checks.

🔧 Created, and enhanced central API capabilities, **cutting down** the time needed for AWS ECR repository creation **by 90%**, **eliminating human errors** and improving **automation efficiency**.

💼 Site Reliability Engineer

Remote 📍

🏢 OPEN SYSTEMS

Oct. 2021 – Feb. 2022 📅

- Created a project integrating with a custom ticketing system database, successfully **reducing false positive alerts** and enhancing the precision of incident response mechanisms.
- Engineered Helm templates** to ensure consistent and reproducible deployments of applications within Kubernetes clusters, thereby improving the reliability and efficiency of deployment processes.

🔧 Implemented a proactive monitoring system that significantly reduced production incidents and **improved mean time to resolution (MTTR)**, increasing system reliability and customer satisfaction.

🔧 Achieved significantly reduced **false positive alerts** and streamlined application deployment in Kubernetes, enhancing system reliability and operational efficiency through targeted improvements.

Site Reliability Engineer

Remote 

 BESTMILE

Jul. 2019 – Oct. 2021 

- Applied **D.R.Y. principles** using **Terraform** modules and **Terragrunt**, creating reusable configurations that streamlined infrastructure management and deployment processes.
- **Migrated** environments **from GCP and Azure to AWS**, including Kubernetes clusters to AWS EKS and Apache Kafka to AWS MSK, ensuring improved performance and scalability.
- **Managed Kubernetes clusters** by focusing on maintenance, security, and debugging, ensuring **service stability and high availability** across the infrastructure.
- Established logging and monitoring systems using **Prometheus**, **Grafana**, **ElasticSearch**, **Kibana**, **Logstash**, and **Filebeat**, enhancing observability and providing actionable insights into system performance.
- **Implemented CI/CD** pipelines with Bitbucket and **Codefresh**, using **Helm** and **Helmfile** for efficient package management, keeping Kubernetes base services up to date and enhancing deployment reliability.

🔧 Achieved **exceptional system uptime** by implementing automated monitoring and alerting tools, significantly **reducing downtime** and ensuring continuous service availability.

🔧 Successfully established, maintained, and enhanced a **robust infrastructure from the ground up**, adhering to Site Reliability Engineering (SRE) best practices.

🔧 Successfully **scaled infrastructure** to handle substantial increases in user traffic during peak times, ensuring a **smooth user experience without service interruptions**.

🔧 Streamlined incident response by developing and deploying a robust incident management framework, including runbooks and automated remediation processes, leading to quicker resolution of issues.

Python Developer

Geneva Switzerland 

 PICTET PRIVATE BANKING

May. 2019 – Jul. 2019 

- Developed and implemented an **Object-Relational Mapping** system for the Neo4J database within the project scope, utilizing the latest **Python** libraries to enhance data access and manipulation efficiency.
- Refactored critical components of legacy code, focusing on optimizing performance and responsiveness. Implemented **Python** best practices to modernize the codebase, resulting in more maintainable and efficient software.

🔧 Enhancing backend reactivity significantly supported product owners in their decision-making processes, leading to more informed and timely business decisions.

Python Developer

Geneva Switzerland 

 EUROPEAN BROADCASTING UNION

Jun. 2017 – May. 2019 

- Developed the backend application for the **European Championships 2018**, enabling live ingestion and streaming of sports data events to partners.
- Led a production pilot using **RDF4J** Semantic Database for live sports streams, creating a Python-based **REST API** with **flask** and an asynchronous backend with **RabbitMQ**, **celery**, and **lxml** for **XML** to **RDF** conversion.

🔧 Production pilot during European Championships 2018 (Glasgow and Berlin), ingest of Live Sports Data.

Software Developer Jr.

Geneva, Switzerland 

 DUCOMMUN DIT BOUDRY SOFTWARE CONSULTING

Feb. 2017 – May. 2017 

- Developed and deployed a comprehensive web application, including backend, frontend, and mobile apps for Android, iOS, and Windows
- Utilized **Scala** frameworks (**PlayFramework** and **Slick ORM**) for backend development, implemented a simple **akka** Actor Model, and **PostgreSQL** as Database. All components were containerized using custom **docker** images.
- Created the frontend with **Angular2 JS** and **Typescript**, employing the Observer Pattern for efficient state management.
- 🌟 Created an end-to-end application for an event with admin roles, user modules and asynchronous backend.

Education

2014 - 2018 **B.S. in Computer Science and Engineering**, HES-SO – hepia (evening courses)

Geneva, Switzerland

2005 - 2008 **Bachelor in Hospitality Management and Marketing**, Glion Institute of Higher Education

Bulle, Switzerland

Extracurricular

HOBBIES

- **Spoken Languages:** *Italian:* Fluent - *English:* Fluent - *French:* Fluent.
- **HomeLab** with multi-node and multi-arch K3S, GitLab and Gitlab-CI, Nextcloud, Syncthing, Media Center, Tailscale, Home-Assistant...
- **Sports:** Scuba Diving, Swimming, Squash, Basketball, my two Dogs.
- **Music:** Vinyl Record collector (1960's 1980's).