



Consultant profile

Mister

Arian Schneeberger

Enterprise Architect



Quick overview

10+ years of professional experience in developing and operating complex software and cloud- & on-premise projects with a focus on Enterprise Architecture and Digital Platforms.

Experienced in planning and developing complex software projects - focus on full stack development and distributed systems.

Experienced in planning and operating complex network and infrastructure projects (cloud, hybrid-cloud & on-premise).

Expert in software engineering and system architecture, with emphasis on Cloud, Kubernetes, GitOps, and automation.

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Tech Stack

Cloud

- Azure, AWS, GCP, Hetzner

Programming languages

Backend:

- Python (*Flask, Pandas, FastAPI*), Java (Spring Boot), Go, Bash, PowerShell, Node.js, Insomnia, Postman

Frontend:

- JavaScript (React.js, Next.js), CSS, HTML

Containerization & Infrastructure as Code

- Kubernetes (Azure Kubernetes Service (AKS), Google Kubernetes Engine (GKE), Amazon Elastic Kubernetes Service (EKS), OpenShift Container Platform (OCP), rke2, k3s, Helm, Kustomize, Red Hat Advanced Cluster Management (RHACM))
- Docker, Docker Compose, Docker Swarm, Podman, Podman Compose, Kind
- Terraform, OpenTofu, Ansible, PowerShell DSC
- NGINX, LetsEncrypt, Apache, Cert-Manager, External-DNS, trust-manager, Istio / OpenShift Service Mesh (OSSM)
- OpenStack, VMWare, Hyper-V

DevOps

- ArgoCD, Tekton (OpenShift Pipelines), Azure DevOps, Google Cloud Repository
- GitLab CI/CD, GitHub Actions, Cloud Build, Google Cloud Artifact Registry, Harbor, Artifactory, Cosign, Sigstore
- Hashicorp Vault, External Secrets Operator
- Shell Scripts (Bash), Linux
- Kubernetes, OpenShift, kubectl, oc, docker-compose, podman, podman compose
- Prometheus, Kibana, Grafana, OpenSearch, Fluentbit, Coroot, Datadog, Dynatrace

Operating systems

- Linux (*Ubuntu, Red Hat Linux (7-9), Debian*), Windows, macOS, MicroOS, Red Hat Core OS (RHCOS)

Artificial Intelligence (AI)

- Ragflow, n8n, Ollama, LMStudio, OpenAI, Anthropic, Gemini, OpenWebUI

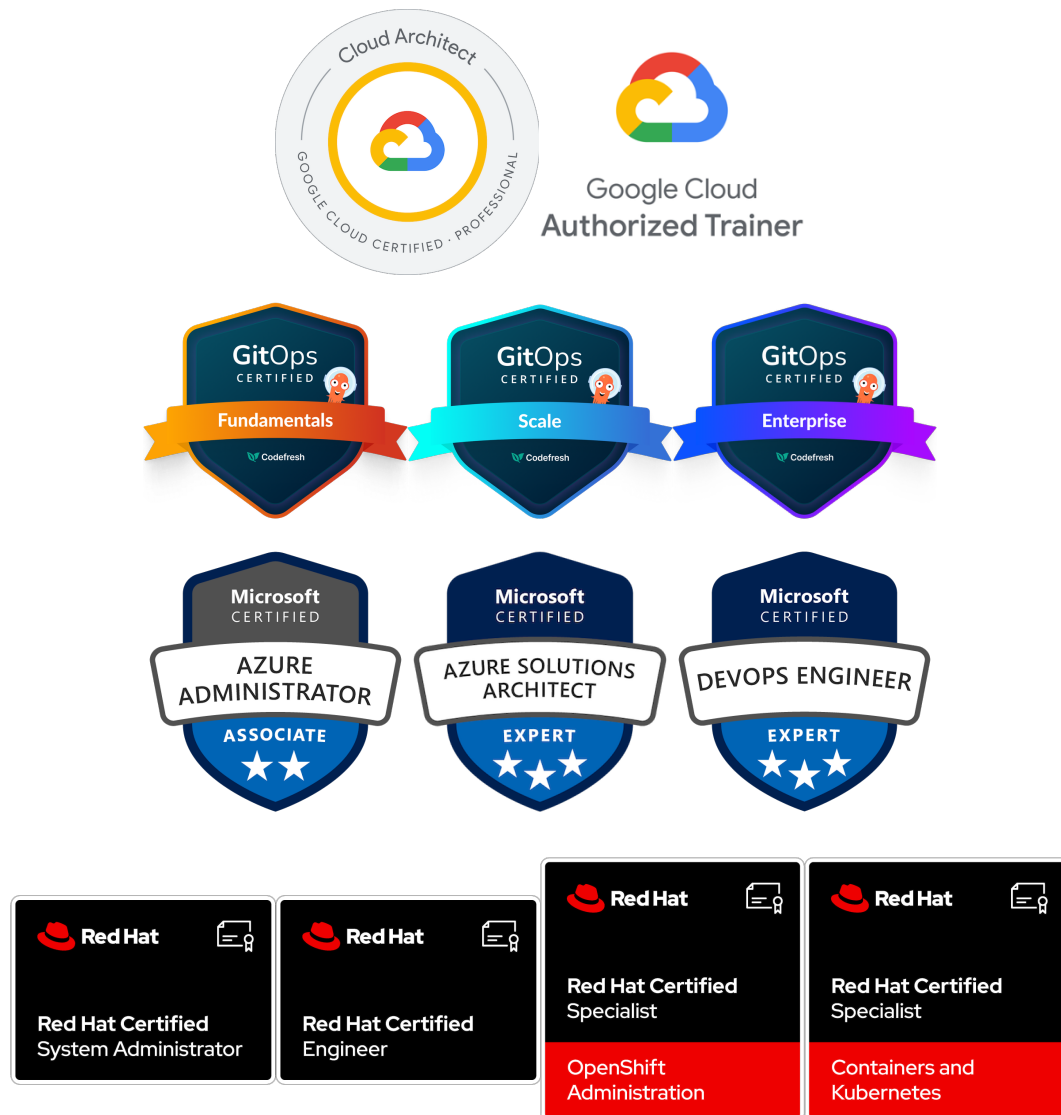
Data Services & Databases

- MariaDB, MySQL, Redis, SQL, PostgreSQL, Keycloak, etcd, MongoDB, Percona XtraDB Cluster, Kafka, Elasticsearch

Tools

- Jira, Confluence, Scrum, Kanban, Git, GitHub, Gitlab, ServiceNow, Sharepoint, VisualStudio Code, PyCharm, IntelliJ IDEA

Further training & certifications



- Google Cloud Certified: Cloud Architect Professional
- Google Cloud Authorized Trainer
- Codefresh Certified: GitOps for Enterprise
- Codefresh Certified: GitOps at Scale
- Codefresh Certified: GitOps Fundamentals
- Microsoft Certified: Azure Administrator Associate
- Microsoft Certified: Azure Solutions Architect Expert
- Microsoft Certified: Azure DevOps Engineer Expert
- Red Hat Certified Engineer
- Red Hat Certified Specialist in Containers and Kubernetes
- Red Hat Certified Specialist in OpenShift Administration
- Red Hat Certified System Administrator

Project experience

Position: Platform Architect

Timeframe: 12/2025 - 12/2026

Industry: Public / Banking

Objective:

- Architectural ownership of the hardening and extension of a managed container platform across public and private cloud, along the three axes of central identity, software supply chain security, and platform lifecycle, combined with rotating operational responsibility within the platform team.

Activities:

- Ownership of the target architecture for central authentication, integrating the enterprise-wide access manager (**Ping Identity**) as a native **OIDC** provider for **Azure Red Hat OpenShift (ARO)**, without an intermediate **Keycloak** broker.
- Architecture decision (**ADR**) on the platform's authorization model, mapping filtered group claims onto native **OpenShift Groups** and **ClusterRoleBindings**, selected over four documented alternatives.
- Direction of the multi-cluster rollout of the **OIDC** integration across the entire **ARO** fleet, with a reusable onboarding runbook, per-cluster checklists, and an onboarding template for the business units.
- Conception of container image signature verification for the **airgapped** environment, based on namespace-scoped **ImagePolicy** enforcement at the **CRI-O** layer with a per-tenant embedded **Cosign** public key.
- Design of the target software supply chain including the reference signing pipeline in **GitLab CI/CD** with **Hashicorp Vault** as key management, and the interface between signing and verification responsibilities.
- Conception and direction of a coordinated **OpenShift** upgrade of four on-premise clusters on **VMware vSphere**, with two upgrade paths and an **Artifactory** mirror as the trust boundary.
- Conception of a governance framework for the operator lifecycle across more than 30 operators, 10 clusters, and 8 vendors, comprising classification, a lifecycle state model, a **RACI** model, and a decommissioning process.
- Design of a target architecture for a central CA truststore as single source of truth, with **Hashicorp Vault** as the source and distribution via **External Secrets Operator** and **trust-manager**.

Technologies:

Red Hat OpenShift Container Platform, Azure Red Hat OpenShift (ARO), VMware vSphere, ArgoCD, Red Hat Advanced Cluster Management (RHACM), Helm, Hashicorp Vault, External Secrets Operator, trust-manager, Cert-Manager, OpenID Connect (OIDC), OAuth 2.0, Ping Identity, Cosign, Sigstore, ImagePolicy, CRI-O, OpenShift Service Mesh (Istio), GitLab CI/CD, JFrog Artifactory, Operator Lifecycle Manager (OLM)

Position: DevSecOps Architect

Timeframe: 03/2026 - 12/2026

Industry: Public / National Government Accounting

Objective:

- Architectural ownership of the identity, testing, and delivery foundations of a federal multi-cluster container platform, focused on centralizing authentication and authorization behind an upstream identity broker and on a consistent testing regime for the base services.

Activities:

- Ownership of the target identity architecture of a base service (**ADR**), with **Hashicorp Vault** as the upstream **OIDC** broker resolving identities and groups and issuing standardized **RBAC** claims.
- Architecture and proof of the **SSO** target design for administrative access, including an interim multi-factor authentication as well as a phased rollout and break-glass concept for production operation.
- Evaluation and selection of the target MFA architecture against **GDPR** Art. 32 and **BSI IT-Grundschutz** (ORP.4), and leadership of the formal requirements alignment with the operator of the government IAM system.
- Design of the identity automation as **Infrastructure as Code** with **Terraform** and **OpenTofu**, including a two-level group and permission model derived from the existing **Azure Entra ID** organizational structure.
- Consolidation of the delivery path onto **GitLab CI/CD**, replacing the previous **Azure DevOps** pipelines, with a parent-child pipeline, central **remote state**, and locking as the basis for multi-tenant operation.
- Conception and implementation of a GitOps-based testing framework for 23 base services, from the test taxonomy through concept approval by the operations team to the rollout as a **Helm** chart via an **ArgoCD ApplicationSet**.
- Assumption of the co-maintainer role for a production base service, with ownership of its operational and security architecture, including integration of the cluster-wide trust store into the shared **Tekton** pipelines.
- Establishment of platform-wide operating and documentation standards through a reusable template set covering three deployment models, as well as acting as **DevSecOps** enabler in the cross-team working group.

Technologies:

Hashicorp Vault, OpenID Connect (OIDC), OAuth 2.0, MFA (TOTP), Keycloak, Azure Entra ID, Apache Kafka, Confluent Control Center, Terraform, OpenTofu, GitLab CI/CD, Azure DevOps, Tekton (OpenShift Pipelines), Red Hat OpenShift Container Platform, ArgoCD, Helm, Kustomize, External Secrets Operator, Cert-Manager, OpenShift Service Mesh (Istio), BSI IT-Grundschutz, GDPR

Position: Enterprise AI Architect

Timeframe: 01/2025 - 11/2025

Industry: E-Commerce

Objective:

- Conception and construction of a fully self-sufficient, on-premise AI Lab based on open-source technologies. The objective was to create a secure and efficient development platform, enabling internal teams to develop innovative AI tools and automation products without relying on external cloud services and while maintaining full data sovereignty.

Activities:

- Architecture and implementation of a self-hosted AI platform using **Docker Compose** to orchestrate core components such as **Ragflow**, **n8n**, **Ollama**, and **OpenWebUI**.
- Integration and configuration of **Ollama** as a central service for hosting open-source Large Language Models (LLMs). Development of automations to ensure the automatic download and updating of base LLMs during setup.
- Development of automation scripts in **Python** and **Bash** to create a bootstrapping user management system, accelerating the initial setup and onboarding of developers onto the tools.
- Setup and hardening of the infrastructure on **Hetzner Cloud**, including securing the entire platform via **Traefik** as a reverse proxy and **Cloudflare** for additional protection and caching.
- Development of three different deployment strategies for the setup (e.g., for development, staging, production) to accommodate flexible and requirement-specific rollout scenarios.
- Presentation of the concept and live demonstration to the client's management and decision-makers, including the creation of budget plans and **ROI analyses** for the various deployment scenarios.
- Creation of proof-of-concept automations and **AI workflows** directly in the provided tools (**n8n**, **Ragflow**) to demonstrate the platform's practical benefits for the client's internal use cases.
- Conducting training and workshops for internal development teams to educate them on using the new AI toolchain (**Ollama**, **OpenWebUI**, etc.) and to convey best practices.
- Development & Setup of basic Networking & Security services with the help of **Traefik & Tailscale** as well as setup of an observability stack for system monitoring & logging with **Prometheus**, **Grafana** & **Loki**.

Technologies:

Ragflow, n8n, Ollama, LMStudio, OpenWebUI, OpenAI, Claude, Gemini, Codex, Traefik, Docker, Docker-Compose, Prometheus, Grafana, Loki, Github, Ansible, Taskfile, Bash, Python, Jinja2, MySQL, MinIO, Redis, Elasticsearch, Portainer

Position: DevSecOps Architect

Timeframe: 06/2025 - 12/2025

Industry: Public / National Government Accounting

Objective:

- Conception and implementation of secure and highly automated multi-tenant platform based on **Microsoft Azure Red Hat OpenShift (ARO)**. The main objective was to provide standardized production services for end customers by building a robust base service catalog and establishing GitOps-based deployment processes to increase efficiency, security, and developer autonomy.

Activities:

- Creation and maintenance of **Azure DevOps pipelines** for the automated provisioning and configuration of production services for customers on **Azure Red Hat OpenShift (ARO)** clusters.
- Development and implementation of **Terraform automations** for the dynamic adaptation of production infrastructure (e.g., network resources, storage) via **Azure DevOps pipelines**.
- Takeover and further development of the **ArgoCD base service** to provide and manage an automated GitOps deployment tool for developer teams on the **ARO** platform.
- Integration of all **ArgoCD** instances with the **OpenShift Cert-Manager Operator** for fully automated management and rotation of TLS certificates for customer applications.
- Establishment of a new authentication base service based on **Azure Entra ID** and **Keycloak** to provide a central and secure authentication layer for all customer workloads on the platform.
- Conception and execution of training and coaching sessions for internal operations teams and customers on the effective use of automation tools such as **ArgoCD**, **Cert-Manager**, and templating via **Helm**.
- Conception and implementation of a secure software supply chain based on **Harbor** and the **Red Hat Marketplace** to secure containerized workloads.
- Development of a central secret management concept using **Hashicorp Vault** for the secure storage and distribution of sensitive data like passwords and certificates within the **OpenShift** cluster.

Technologies:

Red Hat OpenShift Container Platform, Ansible, oc, Red Hat Marketplace, Harbor, Microsoft Azure Red Hat OpenShift (ARO), Azure Cloud, Azure Entra ID, Azure DevOps, Azure Pipelines, ArgoCD, Keycloak, Hashicorp Vault, Terraform, OpenShift Cert Manager Operator, Jinja2, Helm

Position: Platform Architect
Timeframe: 01/2025 - 12/2025
Industry: Public / Legal

Objective:

- Evaluation of **Red Hat OpenShift** as the strategic container platform for running mission-critical applications in a fully air-gapped environment. Deliver a comprehensive **feasibility**, **cost**, and **risk assessment** including a phased rollout roadmap for production adoption.

Activities:

- Planned and designed the **OpenShift** cluster architecture on **Hyper-V** in completely isolated networks (air-gap), aligned with **BSI baseline security** and **CIS benchmarks**.
- Produced all **Ignition** and **Butane** configurations for **bootstrap**, **control-plane**, and **worker nodes**; automated provisioning with **Bash** and **Ansible**.
- Built, configured, and hardened virtual machines (**RHCOS**) with integrated storage, **DNS**, and **DHCP** services.
- Designed network segmentation, routing, and firewall rules; deployed highly available **HAProxy load balancers**.
- Analyzed the existing container/virtualization landscape, benchmarked against **OpenShift (OCP)**, and defined migration and integration paths.
- Executed performance, failover, and benchmark tests (**oc/kubecttl**, **kube-bench**, **kube-burner**); evaluated metrics via **Prometheus** and **Grafana**.
- Modeled cost and capacity for multiple sizing scenarios (Small/Large/XL) covering **licensing**, **hardware**, and **operational effort**.
- Authored a full feasibility study (**risk matrix**, **compliance gaps**, **operating SLAs**) and presented findings to the **CIO board**.
- Outlined a step-by-step rollout roadmap (Pilot → Production), **resource & staffing plan**, and **governance model**.
- Developed a concept and proof of concept for integrating existing **monitoring**, **logging**, and **SIEM** systems (**PRTG**, **Elasticsearch**, **Alertmanager**).
- Critical Analysis of existing **GitLab** (Version Control System) and **Harbor** (Container Registry) setups regarding production status as well as maturity. Planning & implementation of updated target architecture involving **Docker Compose & Hyper-V** with the help of **Ansible**

Technologies:

Red Hat OpenShift Container Platform, Red Hat Core OS, Hyper-V, HAProxy, Prometheus, Grafana, PRTG, Elasticsearch, Bash, Ansible, GitLab, GitLab Geo, Kubernetes, Podman, Podman-Compose, Harbor, Apache HTTPD, Ignition, Butane, oc, kubecttl, openshift-install, CoreDNS, OAuth, Red Hat Marketplace, Harbor Container Registry

Position: Staff Platform Engineer

Timeframe: 06/2024 - 03/2025

Industry: Public / Banking

Objective:

- Further development and optimization of public and private cloud environments based on OpenShift for clients in the public sector and banking, to ensure scalability, security, and efficiency at the highest level.

Activities:

- Continuation and improvement of platform automations using **Infrastructure as Code (IaC)** and efficient **GitLab CI/CD pipelines**, as well as **Ansible**, to achieve efficiency gains and minimize manual processes.
- Expansion and fine-tuning of **OpenShift** clusters to ensure high availability, maximum performance, and robust security, applying **DevOps** best practices and the latest **BSI security standards**.
- Conducting training sessions, workshops, and coaching for internal teams to promote knowledge exchange and deepen competencies in handling cloud technologies, container orchestration, and **OpenShift**.
- Development of intelligent automations for application versioning to enable seamless deployments and rollbacks by implementing **GitOps** principles and **continuous deployment** strategies.
- Development of a powerful **Python** application for automatic synchronization of tenant data to enable smooth integration with **Red Hat Advanced Cluster Security** and consistently apply company-wide security policies.
- Implementation and ongoing development of a comprehensive observability stack based on **OpenTelemetry** and **Dynatrace**, including the creation of customized dashboards and alerts for proactive system monitoring and troubleshooting.
- Design and implementation of a comprehensive update and patch process for **OpenShift** clusters and internal platform components to meet the highest security standards and compliance requirements, including the automation of testing and deployment steps.

Technologies:

OpenShift, Kubernetes, Red Hat Advanced Cluster Security, OpenTelemetry, Dynatrace, Python, Git, GitOps, CI/CD pipelines, Infrastructure as Code (IaC), DevOps, Continuous Deployment, Azure, Ansible, Prometheus, Grafana, Docker, Linux, Agile Methodologies, ArgoCD, VMware

Position: Head of DevOps
Period: 06/2023 - 08/2024
Industry: E-Commerce
Goal:

- Conception and development of a **platform** to operate a webshop based on **Kubernetes** in combination with a **Multi-Cloud** Approach.

Activities:

- Design and implementation of the target architecture based on **Kubernetes** on the **Hetzner Cloud** as well as on the **Plus Server Kubernetes Engine**.
- Planning and management of the project with regard to the following points: **resources, budget, service provider management, architecture**.
- Buildup of the department *Platform & DevOps* with the focal points **Automation, Infrastructure as Code, GitOps, Cloud Services, Stability**.
- Management of the department's employees of *Platform & DevOps* (10+ employees)
- Development of **Dockerfiles** for containerizing Java **Spring Boot** and **Python Flask** Applications.
- Building of **Gitlab CI/CD Pipelines** for automatic testing and creation of **Container Images** for all applications (**Self Contained Systems**) of the web shop based on **Java Spring Boot & Gradle**.
- Development of the **Terraform** Automation for provisioning and initializing all infrastructure components (**Kubernetes, ArgoCD**, etc.)
- Design and implementation of automated deployments and based on **ArgoCD**
- Development of **Helm-Charts** for the deployment of the web shop applications and platform services (**Kafka, Solr, Cert-Manager, Nginx**)
- Construction of a **Monitoring Stacks** based on **Prometheus** and **Grafana**. Connection of all setups for monitoring including **Alerting** over **Pagerduty**.
- Construction of a **Logging Stack** based on **Opensearch & Fluentbit**
- Design and setup of the automated synchronization of sensitive content (system credentials, certificates, passwords, etc.) using a **Hashicorp Secrets Vault**.
- Setup of **Google Cloud Buckets** for external storage and distribution of sensitive configuration files.
- Building and setup of an IAM **System** based on **Keycloak** for secure authentication on critical systems with the help of **Role Based Access Control (RBAC)**.
- Setup of a **Kafka Cluster** for asynchronous delivery of message queues.

Technologies:

Java, Java Spring Boot, Gitlab, Gitlab CI/CD, Gitlab Container Registry, Terraform, GCP, Google Cloud Bucket, Docker, Dockerfile, Prometheus, Grafana, Opensearch, Fluentbit, Kubernetes, PSKE, Kafka, Solr, Cert-Manager, Nginx, Java, Spring Boot, Gradle, Python, Flask, ArgoCD, Helm, Hashicorp Secrets Vault, Keycloak

Position: Senior Cloud Consultant
Period: 12/2022 - 07/2023
Industry: Public

Goal:

- Conceptualization and development of infrastructure components and platforms for automating processes and providing development and operations environments within a **private cloud** environment.

Activities:

- Developed a **GitLab CI/CD** pipeline for the automated provisioning of virtual machines for software development teams using **Ansible**, **GitLab CI/CD**, **Bash scripting**, and **PowerShell**.
- Designed and implemented a **Python FastAPI REST API** to create and update **DNS zone files**, integrating an **OAuth-based authentication interface**.
- Authored a **Dockerfile** to containerize the **Python FastAPI REST API** application, standardizing deployments as **Docker containers**.
- Automated the deployment process of the **Python FastAPI REST API** as **Docker containers** through a **GitLab CI/CD** pipeline using **Puppet**.
- Created network topologies for the service designs deployed on customer platforms within a private cloud (**VMware**).
- Developed automations for managing and updating **Squid-based proxy servers** to enable external connectivity of virtual machines using **Ansible**, **Bash scripting**, and **Squid**.
- Implemented **unit tests** to ensure the reliability of key modules during the build process of backend applications developed in **Java and Spring Boot**, containerized with **Docker**.
- Set up infrastructure automation to provision and initialize infrastructure components leveraging **Terraform** and **Ansible**.
- Created workflows for build, release, and deployment processes to achieve automated versioning and delivery of applications using **GitLab CI/CD**, **Bash scripting**, and **Ansible**.
- Developed **UI tests** to ensure the platform's frontend functionality using **Selenium** and **Next.js**.

Technologies:

Python, FastAPI, Java, Spring Boot, GitLab CI/CD, Ansible, Puppet, Bash Scripting, PowerShell, Docker, Dockerfile, Terraform, Red Hat Enterprise Linux, Windows Server, VMware, Next.js, Selenium, GitHub Actions

Position: Senior Platform Engineer (Cloud)

Period: 11/2021 - 12/2022

Industry: Finance

Objective:

- Development of cloud infrastructure, CI/CD tools, and automation solutions to optimize processes and provide development platforms based on **OpenShift** clusters.

Activities:

- Designed and implemented a **REST API** for processing existing and new data sets, including integration of **PostgreSQL**, using **Python** and **Flask** for efficient data management and analysis.
- Developed **Dockerfiles** to containerize the Python application, enabling a standardized and scalable deployment pipeline with **Docker** and **Azure DevOps**.
- Developed **Azure Pipelines** for automating the build and deployment processes of containerized **Flask** REST APIs, leveraging **Azure DevOps**, and deploying to **Azure Container Instances**.
- Automated documentation page creation with **Ansible** and **Jinja2** templates, providing centralized, detailed information about infrastructure updates and patch processes.
- Created **Terraform** automations for provisioning secret stores in **Azure Key Vault**, ensuring secure handling of authentication data as Infrastructure as Code (IaC).
- Configured and migrated **Kubernetes** clusters using **Azure Kubernetes Service (AKS)** and **Helm** charts to efficiently manage and scale workloads.
- Developed automated notification processes for the start, status, and completion of patch day procedures using **Ansible** for workflow orchestration and **Jinja2** templates for dynamic content generation. Relevant cluster and customer data were retrieved from the CMDB (**SQL**) via **Python** scripts and integrated into email notifications to standardize customer communication.
- Created **Python-based** automations to synchronize and update customer data in **Azure DevOps** repositories, integrating these updates into the CMDB (**SQL**).
- Enhanced a Docker base image for use within **Azure Pipelines**, increasing the flexibility and efficiency of **CI/CD** processes.
- Automated **Red Hat Enterprise Linux (RHEL)** server administration using **Ansible** and **Bash Scripting** to minimize manual configurations.
- Administered **OpenShift** clusters for running containerized applications, utilizing **Kubernetes**, **OpenShift**, and **Docker**.
- Worked within **Scrum** teams to ensure iterative and agile development processes.

Technologies:

Python, Flask, Docker, Dockerfile, Azure DevOps, Azure Pipelines, Azure Kubernetes Service (AKS), Helm, Terraform, Ansible, OpenShift, Kubernetes, SQL, Jinja2, Bash Scripting, Red Hat Enterprise Linux (RHEL), Scrum

Position: Senior Azure DevOps Engineer

Period: 06/2021 - 12/2021

Industry: Software

Engineering

Goal:

- Development of a **Plugin** for automated installation and patching of a central **Argo CD instance** (Namespace restricted) on existing and new **OpenShift** Clusters

Activities:

- Structuring and processing of work packages through **Scrum**
- Creation of an **Azure DevOps Pipeline** for triggering **Ansible** Automations within a **Docker Containers** to run the installation tasks
- Writing of an **Ansible Role** for automatic execution of the **ArgoCD** installation with dynamic customer data as input.
- Writing of **Kustomize** Modules for automatic pre-formatting of central **Kubernetes** Output resources from the **Argo CD GitHub** Repository and subsequent basic installation
- Development of a test module with **Ansible** to query the necessary installation steps based on the state of the following workloads on the clusters: **Certmanager**, **Keycloak (OpenID Connect/OAuth2.0)**, **Argo CD**, **Roles** and **Rolebindings**.
- Creation of **Jinja2 Templates** for the dynamic rollout of all necessary **Kubernetes/OpenShift** Resources (**Namespaces**, **Roles**, **Role Bindings**, **ConfigMaps**, **Secrets**).
- Writing of automated tests in **Ansible** to control specific installation and/or update tasks
- Automation of the creation/editing/removal of **Kubernetes** and **OpenShift** Resources in the target cluster to adjust application behavior and application permissions
- Automated integration of the **Argo CD** application server into the existing **Keycloak** instance of the cluster for authentication through **Keycloak SSO**.
- Development of all **Kubernetes** and **Argo CD** resources as **YAML** Files for the automated test suite of the installed **Argo CD**.
- Building the automated test suite as part of the installation and deployment of test workloads **Argo CD** based on defined **YAML Files** in a **Azure DevOps Repository**
- Administration of **Red Hat OpenShift Container Platform (RHOC)** Cluster as a **Red Hat Certified specialist in OpenShift Administration**
- Development and administration of containerized applications on **Red Hat OpenShift Container Platform (RHOC)** Clusters as a **Red Hat Certified specialist in Containers and Kubernetes**

Technologies:

Azure Pipelines, GIT, Kubernetes, OpenShift, Python, Ansible, Docker, Harbor Image Registry, Keycloak, Argo CD, Kustomize, Bash Scripting. OpenID Connect, OAuth2.0

Position: IT Systems Engineer (Cloud)

Period: 01/2021 - 11/2021

Industry: Managed Services (PaaS)

Goal:

- Further development of an automated **Gitlab CI/CD Pipeline** for installing and updating new and existing **OpenShift Clusters**.

Activities:

- Development of an **Ansible** Role for automatically documenting cluster-specific data in the central **CMDB (SQL)** such as cluster name, IPs and network ranges, node size and quantity, namespaces, etc.
- Division of tasks into **Sprints** with **Scrum** to complete the tasks
- Creating of **Ansible** Playbooks for automatically checking and adapting the following **OpenShift** Resources on existing and newly installed clusters: **Namespaces, Templates, Namespace- and Resource Quotas, Limits, Limit Ranges, OpenShift-Logging, Images, Roles and Cluster Roles, Role Bindings and Cluster Role Bindings**.
- Automated creation of a **Harbor Image Registry** to manage **Images** with **Terraform**
- Writing of a module with **Python** and **Ansible** for automatic documentation of the most important customer and cluster data in the **README.md** File of the associated **Gitlab Repositories**.
- Design of **OpenShift Project-Templates** for automatically rolling out predefined Project resources when creating new namespaces in the **OpenShift Cluster**.
- Creation of an **Ansible** Automation to query and build/patch the **OpenShift** Project templates to improve the administration of managed namespaces.
- Development of automated **Gitlab CI/CD** Stages to trigger all automations to patch all of the **Kubernetes/OpenShift** Resources.
- Automated setup of **Keycloak** instances for managing customer credentials
- Development and administration of containerized applications on **Red Hat OpenShift Container Platform (RHOC)** Clusters as a **Red Hat Certified specialist in Containers and Kubernetes**

Technologies:

Gitlab CI/CD, GIT, Kubernetes, OpenShift, Terraform, Python, Ansible, Docker, NetApp Storage, Trident, Keycloak, Scrum, RedHat

Position: Senior Azure DevOps Engineer

Period: 08/2019 - 12/2020

Industry: Automotive

Goal:

- Planning and implementation of the development of several managed **Azure Kubernetes Service (AKS)** Clusters with **High availability** and **Stability** as main goals for enterprise customers through **Azure DevOps** Pipelines .

Activities:

- Creation of **Azure DevOps Repositories** for all source code files.
- Planning of Tasks via a **Kanban Board**.
- Lead of internal and external Engineers for development tasks.
- Creation of **Azure Resource Groups** as well as **Azure Container Registries** for storing container images.
- Automation and **IaC** definition of the infrastructure with the help of **Terraform**
- Planning and design of the necessary **Network architecture** as well as setting up customer specific **Network adjustments** through **Azure Virtual Network (VNET)**.
- Setup of all customer requirements into the initial configuration files with a focus on **Permissions, Azure Network Security Groups (NSG), Resource Quotas, Azure Load Balancing (Azure Application Gateway)** and **Cluster accesses** of internal and external endpoints (**Azure VPN Gateway**).
- Setup and administration of relevant Kubernetes resources through **Ansible** (Namespaces, Deployments, Network Policies, Egress/Ingress-IPs, PodDisruptionBudgets, Resource Quotas, Roles und Rolebindings, Cluster Roles und Cluster Rolebindings, Templates, Images, etc.).
- Setting up of **Azure Firewall** Rules for the private/public access of the cluster.
- Building and developing an authentication interface to the cluster using **Azure Key Vault**.
- Maintain relevant project documents within the dedicated **Sharepoints**.
- Providing 2nd and 3rd level support through **ServiceNow** ticketing.

Technologies:

Azure DevOps Pipelines, Azure Firewall, Azure Load Balancing, Azure Application Gateway, Azure VPN Gateway, GIT, Kubernetes, Azure Kubernetes Service (AKS), Terraform, Python, Ansible, Docker, Ubuntu, Harbor Image Registry, Azure Key Vault, Scrum, Kanban, Sharepoint, ServiceNow, Oauth2.0, OpenID Connect, User Federation (Azure AD, Keycloak, etc.)

Position: Process Automation Engineer

Period: 04/2020 - 01/2021

Industry: Biotech

Goal:

- Development and deployment of a containerized **Python Flask REST API** for receiving, processing and forwarding critical data from **RedHat Enterprise Linux** Servers for administration purposes.

Activities:

- Design and structuring of the data template as **YAML** files for agglomerating the most important cluster data.
- Writing of a **Python module** to pull, commit and push from **Git Repositorys**.
- Creating a data parser from **JSON** to **YAML** in **Python** which merges multiple data streams into a predefined structure.
- Configuration and implementation of the logic for **Authentication** in **Python** with the help of **Flask-HTTPAuth**
- Development and containerization of a **Python** Application which sends critical data of the respective **RedHat servers** via the **Command Line** interface through **CronJobs** as **POST Requests** to the **Flask REST API** which processes and forwards the data to a **Kubernetes** management cluster.
- Building of **Helm Charts** and **Github Actions Workflows** for automatically deploying the applications on the target clusters.
- Building of **Github Actions Workflows** to automatically build and push **Container Images** of the applications to a **Harbor Image Registry** in the event of changes to the source code.
- Automated deployment of developed and containerized applications and workloads with **Github Actions Workflows** and **Helm**.
- Leading of three employees as a **Scrum Team** and prioritization of work tasks.
- Administration of **Red Hat Enterprise Linux (RHEL)** servers as a **Red Hat Certified System Administrator (RHCSA)**
- Automation of the administration of **Red Hat Enterprise Linux (RHEL)** servers
- Development and administration of containerized applications on **Kubernetes** Cluster (On-Premise installation)

Technologies:

Github, Github Actions, GIT, Kubernetes, Python, Ansible, Docker, Harbor Image Registry, Flask, HTTP-Requests, Helm, JSON, YAML, Scrum, RedHat Enterprise Linux

Position: Process Automation Engineer

Period: 07/2019 - 03/2020

Industry: Biotech

Goal:

- Development of a web application to record machine data from a production area in medical technology

Activities:

- Development of a **React** Frontend for recording of production data from employees.
- Creation of a **Java REST API** for recording sent production data with the help of **Java Spring Boot**.
- Writing of **Java** Functions and hooks for data fetching of an existing machine API.
- Design and development of the **Java** Modules for formatting of the data for further processing. Dynamic calculation of KPIs and data cleaning based on environmental influences in the production areas.
- Design and development of the **Java** Modules for extrapolating data to calculate machine maintenance intervals.
- Translation of the developed modules from **Java** to **C#** to improve performance and maintainability.
- Containerization of the **C# REST API** in **Docker** based on **.NET Core**
- Deployment of the frontend and backend components as **Docker Container** through **Docker-Compose**.

Technologies:

Java, Java FX, Java Spring Boot, C#, React, .NET Core, Docker, Docker-Compose

Position: Industrial Engineer

Period: 10/2017 - 05/2019

Industry: Automotive

Goal:

- Design and Development of a Kubernetes-based MVP for real-time analytics of automotive circuit board manufacturing processes, aimed at enhancing production throughput and efficiency through detailed KPI monitoring and optimization.

Activities:

- Design of a distributed **Node.js** application architecture leveraging **Kubernetes** to ensure high availability, scalability, and fault tolerance.
- Integration of services and deployment strategies to support real-time data fetching and processing.
- Leading an engineering team in agile sprints for incremental development, testing, and deployment of the platform components.
- Development of the backend services using **Node.js** and **Express**, orchestrated by **Kubernetes** to manage containerized microservices efficiently.
- Setup of a **React**-based frontend, containerized and managed via **Kubernetes** for dynamic scaling according to user demand.
- Use of **MongoDB** as a containerized database service within **Kubernetes** for persistent data storage and high-speed data access.
- Utilized **Prometheus** and **Grafana** for detailed monitoring of infrastructure and application metrics within the **Kubernetes** environment, with real-time alerts and dashboards to oversee system health and performance.
- Enhanced security with network policies, **Istio** service meshes, and TLS encryption, along with implementing Kubernetes best practices like **RBAC** and **Secrets** management to safeguard against unauthorized access.
- Developed a comprehensive **Jenkins CI/CD** pipeline integrated with **Kubernetes** for automated testing, building, and deployment, alongside rigorous unit, integration, and security testing to assure platform reliability and safety.
- Managed the scalable deployment of the application across various cloud platforms for high availability and redundancy, coupled with detailed training sessions for users and IT staff to maximize system efficiency and troubleshooting.

Technologies

Kubernetes, Node.js, Express, React, MongoDB, Docker, Jenkins, Prometheus, Grafana, Istio, TLS, and various data visualization libraries.

linguistic proficiency

German:	mother tongue
Italian:	mother tongue
Persian:	mother tongue
English:	Full Professional Proficiency
Spanish:	Basic knowledge

Initial and continuing education

- Master of Engineering (Nanotechnology/Process Automation), Nuremberg University of Technology
- Bachelor of Engineering (Materials Engineering), Nuremberg University of Technology

Please note that our consultants' profiles will also be presented to other customers in parallel until they are finally confirmed.