

PROFESSIONAL EXPERIENCE

DevOps Engineer: ICT Consultant via Kiratech Swiss SA (previously Kiratech), headquarters of Lugano, CH October 2019 - Present

Main activities and responsibilities I have:

- Infrastructure as Code:
 - o Design and implementation of automation procedures of manual processes
 - Support in Cloud transformation on the main cloud providers (Azure, GCP, AWS) using Terraform and Packer
 - Design and implementation of Cloud-oriented solutions leveraging latest Cloud providers' features adapted to the project purpose
 - o Design, implementation, and improvements of automatic configuration in Ansible for Linux and Windows servers
 - Planning and realization of Ansible playbooks and roles to install and maintain multi-role clusters of complex architecture, both on premise and on Cloud Providers
 - o Develop and present trainings on Infrastructure as Code on Ansible Tower and AWX
 - Responsible of designing Infrastructure as Code processes, actively contributing to collect requirements and decision-making meetings
 - Implement and spread DevOps best practices to share knowledge on customers
 - o Definition and support in the digital transformation of customers' company
 - o Implementation of Continuous Integration and Continuous Deployment for Ansible roles with Molecule and Travis CI
- Containerization:
 - o Design and implementation of containerized solutions from Docker Swarm to Kubernetes
 - Responsible of the IT DevOps project in many companies for development, management, and support of Kubernetes clusters lifecycle: automated installation, day2 operations and evolution, GitOps approach through Helm Charts and Continuous Deployment using ArgoCD
 - Support to Container adoption for Enterprises in Fintech, Healthcare, Mobility industry, Casino Industry and Energy Industry
 - Management and operation of Mirantis Kubernetes Engine (formerly Docker Enterprise Edition) and Rancher clusters
 - Design and implementation of complex Helm chart to configure Kubernetes Infrastructure as Code with focus on security, reliability, hardening and segregation, multi-account solutions and resource management
- Log Management:
 - ELK Stack installation and security hardening configuration using custom ansible playbooks and roles to guarantee reproducibility and compliance over different environments
 - o Building of Kibana dashboards to gain visibility and alerts on the selected infrastructure and application logs
 - Implementation of Logstash pipelines to process ingested data
 - o Interaction with Elasticsearch API to build custom workflows using Python scripts
 - Integration of Kubernetes clusters on Splunk Enterprise configuring Outcold Collector for Kubernetes by interacting with different teams

General DevOps activities that I carry out:

- Security and hardening consulting and implementation
- Write down architectural and implementation documentation at many depth levels to be able to communicate with different project roles
- Proactively recommending optimizations of processes following the DevOps approach on small to medium companies and Enterprises
- Planning the activities to be carried out with companies, alone or with my support with Agile approach
- · Advising companies through trainings on tools which I am expert on

EDUCATION

MSc Computer Science and Machine Learning, Politecnico di Milano

2019

- Main topics: Computer Systems, Performance Evaluation of Computer Systems, Machine Learning, Advanced Software Engineering, Advanced Web Technologies, Web Science, Digital Project Management, Data Mining, Data Analysis, Model Identification, Advanced Database, Information Retrieval, Internet of Things, Mobile Applications, Operations Research
- Thesis: A Text Segmentation technique based on Neural Network Language Models
 - Advisor: Marco Brambilla, Politecnico di Milano

BSc Computer Science and Engineering, Politecnico di Milano

• **Main topics**: Software Engineering, Database, Web Technologies, Algorithms, Principles of Computer Science, Electronics, Statistics & Probability, Internet Networks, Signals and Systems, Logical Networks, Linear Algebra

CERTIFICATIONS

• Certified Kubernetes Administrator (CNCF)

PROJECTS

- Kinesis-Lambda: a CICD project (leveraging Jenkins and GitHub actions) to deploy an AWS Lambda that fetches input from an AWS Kinesis stream (fed by the AWS Kinesis Agent), parsing logs and saving them into a NoSQL Database table of AWS DynamoDB
- **ELK stack automation**: Set of ansible playbooks and roles to install from scratch an Elasticsearch cluster and stack components in Mutual TLS
- **Cashlify:** a Flutter cross-platform application to manage bank accounts, integrated with Google Firebase to manage centralized authentication and data storing on Cloud Firestore (NoSQL database)
- Kubensure: a Golang CLI to check permitted communications between pods
- **Kube-Interact**: a micro-services cloud native application that consists of a ReactJS frontend and a Golang backend to interact with Kubernetes REST API, developed in Docker Images
- WebScience: Machine Learning analysis on different sources of data (parking, weather and more) of Como passing all the stages of Data wrangling (acquisition, preparation, analysis, visualization, and prediction) to achieve advanced Machine Learning models such: Decision Tree, K-Nearest Neighbors (KNN), Random Forest and Neural Networks. Using the databricks toolset and Scala
- **Modeling**: project concerning the creation of a meta model and design in Eclipse using Eugenia, OCL, EMF
- Labirinth: development of a well-known board game through the mobile Android architecture writing Kotlin code
- **OutlineTheMountain**: development of a Springboot web application in which users can register and perform tasks that include annotation and outline of mountains images
- CRM: development of an application using the Java RMI architecture that simulated a multiplayer virtual game

KEY SKILLS & COMPETENCIES

Language

Italian - mother tongue

English – Full professional proficiency

IT Skills

- Cloud computing (Google Cloud Platform, Azure, AWS) and advising on digital transformation towards cloud native application
- Infrastructure as Code: Terraform, Ansible, Ansible Tower, Packer, Vagrant.
- Containerization: Docker, Cri-O, Containerd, Dockerfiles, Docker Compose, Kubernetes, K0s, K3s, Helm, Kustomize
- Planning, management and Source Code Management tools: Asana, Jira, Gitlab/GitHub Issues and boards/projects
- Development tools: VisualStudio Code, Git (SmartGit, Sourcetree)
- Programming/Scripting Languages: Python, SQL, Golang, Bash, Powershell, Kotlin, Java, C++, Scala, R, Dart (Flutter)
- Operating Systems: All major Linux distributions, Windows, Windows Servers, MacOS
- Other Tools: CICD tools (Molecule, Travis CI, ArgoCD, Jenkins, Gitlab CI, Xray, Artifactory, SonarQube, GitHub Actions), Log management and monitoring tools (Elasticsearch, Splunk Enterprise, Grafana and Prometheus), Documentation tools (Confluence), Security tools (AquaSec, Nessus, CrowdStrike Falcon, CIS Benchmark checker for Docker and Kubernetes), Machine learning suites and tools (Anaconda, Databricks, R, Matlab)

Soft Skills

- Analytical and critical thinking
- Self-motivation and fast learning
- Proven ability to work in team in challenging environments, planning activities for both myself and other team members
- Resilience: proven ability to work in stressful situations, always meeting deadlines
- Proven ability to work by iterations, continuously improving
- Organization: great organizational and time-management skills
- Great experience with oral presentations and in writing manuals and guides

INTERESTS & LEISURE ACTIVITIES

- Passion for technology, travelling, fitness, swimming
- I work-out since the age of 17