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Idriss Neumann

- SRE/DevOps and Platform engineer, tech lead
- Distributed systems engineer
- More than 13 years of experience in DevOps, Cloud, backend development and microservices architectures

SKILLS

- Public cloud: GCP, Azure, AWS, Scaleway, OVH, Cloudflare
- Containerized infrastructure: Docker, Kubernetes, Kaniko, Podman, Openshift
- Infrastructure automation: Terraform, Pulumi, Terragrunt, Ansible, Puppet, Helm
- **Observability:** Grafana, Kibana, Prometheus, Loki, Quickwit, VictoriaMetrics
- CI/CD: GitLab CI, GitHub Actions, Jenkins, Tekton, ArgoCD
- Programing languages: GO, Java, Python, C, JavaScript, Shell/Bash
- Frameworks: Spring, Quarkus, Vert.x, Flask, FastApi, React, Angular, Vue, Flutter
- Databases: PostgreSQL, Oracle, MySQL/MariaDB
- NoSQL: Cassandra, Redis, MongoDB
- Search engine: Elasticsearch, Apache SolR, Quickwit
- Messages bus: Kafka, Pulsar, NATs, RabbitMQ, Redis pubsub/stream

EDUCATION

Engineer degree¹ / M.Sc. - CNAM Engineering school

SEP 2011 - JUL 2014, Paris (France)

BTS² Computing and management — Lycée du Parc des Loges

SEP 2009 - JUL 2011, Evry (France)

High school diploma (Science Section, Mathematic speciality) — Lycée Léonard de Vinci

SEP 2005 - JUL 2009, Saint Michel sur Orge (France)

¹ In France, Engineer degree is equivalent to Master of Science

² It's a two years degree existing in France, equivalent to a bachelor

EXPERIENCE

Observability and infrastructure specialist, solution architect — Sopra Steria, on a mission EULISA

JAN 2024 - TODAY

- Work within an European Agency specializing in border management
- Design and implementation of a high-performance observability system
- Drafting of various documentations (**HLD**³, **LLD**⁴, various ICD⁵, **archimate flows**, ...)
- Used technologies: Grafana, Quickwit and VictoriaMetrics.
- Deployment on Microsoft Azure⁷, Kubernetes (AKS and OpenShift) using ArgoCD
- Object storage (S3-like) on Ceph
- Development of various microservices (webhooks, Opentelemetry/Prometheus exporters, etc) using Python FastAPI

Platform Engineer / GO developer - Quickwit

NOV 2023 - NOV 2024

- Opensource contributor of the Quickwit⁸ integrations into the CNCF ecosystem. Development mainly using Go and TypeScript.
- Contributor to the Grafana, Falco, Odigos, and Glasskube plugins.
- Management of the deployment of Quickwit on GKE (Kubernetes on GCP) and with its GitOps configuration based on Helm
- Developer/contributor of the **Helmchart**
- DevRel content: redaction of documentation, blogpost and conferences for developers

Founder, CTO - CWCloud⁹

JUL 2022 - TODAY

- **CWCloud** is a platform for accelerating the delivery of managed infrastructure and services, including **FaaS** (**serverless** function as a service), web IDE, **DBaaS** (database as a service) and other applications
- The services are deployed following the "GitOps" principles ou "IaC" (Infrastructure as Code)
- **CWCloud** is a multi-tenant platform, with a SaaS version and on premises/self-hosted versions
- Used technologies: Python FastAPI, React, Typescript, GO, Pulumi¹⁰, Kubernetes, Helm, Ansible

³ High Level Design

⁴ Low Level Design

⁵ Interface Contract Document

 $^{^{\}rm 6}$ VictoriaMetrics is a TSDB (timeseries database) compatible with Prometheus and scalable (work as a real distributed cluster)

⁷ EULISA is using hybrid cloud infrastructure with **onprem** datacenter and Microsoft Azure using both **AKS** and **ARO** (**openshift** on **Azure**)

⁸ **Quickwit** is a modern observability search engine, competing with **Elasticsearch** and **Grafana Loki** and storing data to **object storage** (**S3**-like) to lower the cost. To get more details, here's the official website: https://quickwit.io

⁹ More information here: https://www.cwcloud.tech

¹⁰ **Pulumi** is an equivalent of terraform more suitable to be used inside application's code because it's used as an SDK, it also store the states to the various **object storage** (**S3**-like) of cloud providers. More information here: https://www.pulumi.com

- Used in production by several companies including Docaposte, Sobflous, Inovshop (which is deploying its services for Samsung, Orange, L'Oréal, Huawei)
- Compatibility with AWS, GCP, Azure, Scaleway, OVH and cloudflare
- Opensource contribution to the OVH Pulumi provider¹¹

Cloud Architect/Full-Stack Developer - Fairmat

APR 2023 - AUG 2023

- Design of the technical architecture and development of a Restful API with Python FastAPI and PostgreSQL
- Web and mobile user interface development with **Flutter**
- DevOps automation on the cloud using Terraform and Terragrunt to deploy the application on Google Cloud Platform (GCP)
- CI/CD with github-action to build the docker/OCI images and deploy it on **GCP Cloud Run** (managed service which is relying on **knative**)

SRE/DevOps/Cloud Consultant - Shippeo

JUL 2020 - JAN 2023

- Managing new production environments on Google Cloud Platform (GCP) and Scaleway (for development environments) based on Kubernetes
- Setting up CI/CD system for building and delivering the various deliverables with GitHub, GitHub Actions, Tekton and Harbor
- Deployment of the various components¹² used by developers or data scientists, following the GitOps principles using ArgoCD and Helm.
- Setting up the observability stack with ElasticStack, Kibana, Grafana, VictoriaMetrics
- Scripting mainly with Python and Bash, creating RESTful API in Python

Founder, CEO et CTO - Comwork.io¹³

SEP 2018 À TODAY

- Founder of the French division of comwork.io
- Project and technical management of offshore team based in Tunisia
- Technical management focused on the following technologies:
 - Design and development of distributed web applications using RESTful API or asynchronous worker (using Rabbit MQ, Kafka, Redis pubsub, NATS or Plusar).
 - programing languages: Java (Springboot, Quarkus, Vert.x), Python (Flask and FastAPI), Go
 - SRE/DevOps with:
 - infrastructure provisioning using Terraform, Terragrunt on GCP, AWS, Azure, Scaleway, and OVHCloud
 - building containers images using Docker, Kaniko
 - deployment automation on Kubernetes using Helm, ArgoCD, Tekton, Gitlab-CI, Github Action
 - VM deployment automation using virtuelles **ansible** and puppet

¹¹ The repo is here: https://github.com/ovh/pulumi-ovh
¹² Microservices, frontends apps, databases, workflow engines, AI training platform...

¹³ Comwork.io is a digital services company focused on distributed system development and DevOps/cloud deployment (automation, scalability and observability/monitoring). More information here: https://www.comwork.io

IT Consultant, lead tech - Docaposte¹⁴

JAN 2016 - AUG 2020

- Lead tech and software architect on the Digital Hub Project15
- Microservices architecture with JEE, Spring, Vert.x, Kafka, Cassandra, Elasticsearch, Backbone.js
- CI/CD with Jenkins, then replaced by Gitlab-CI and Docker
- Infrastructure and configuration automation with Puppet and Ansible
- Observability with Kibana, Grafana, Elasticsearch, Kafka, Collectd and Rsyslog
- Load testing using Gatling¹⁶ (Scala)

Java JEE Developer – Capgemini TS CSD, on a mission for the Fret $SNCF^{17}$

JAN 2015 - DEC 2015

- Design and development of the new version of their Information System
- Used technologies:
 - Backend: JEE, Spring (IoC, MVC, Security, Batch), Hibernate, CDI¹8,
 PL/SQL
 - Frontend: Thymeleaf, JQuery and Bootstrap
 - Databases: Oracle 11g, PostgreSQL
 - Distributed system: WS REST and SOAP with CXF, ActiveMQ with Apache Camel
 - Search engine: Elasticsearch
 - o CI/CD and deployment automation: Jenkins, Chef
 - Tests and code quality: Jenkins, SonarQube, JUnit, JaCoCo, Checkstyle, Findbugs
- Technical management and assistance to a nearshore development team based in Casablanca (Morocco)
- Creation and maintenance of an open source¹⁹ framework for managing workflow and lifecycle of orders

Java JEE consultant - Capgemini TS CSD, on a mission for Elis²⁰

SEP 2014 - OCT 2014

- Development of a prototype as part of a pre-sale for the redesigning an entire Information System
- The initial Information System was developed in 1989 with the C and TSQL languages and we had to reverse engineering it and translate it in a new code base based on Java JEE / Spring (IoC, MVC, Security) and Hibernate (keeping the same Sybase database)

¹⁴ Digital branch of the French Post

 $^{^{15}}$ IoT and serverless FaaS platform of the French Post, used for several services in the health data and public sector

Load testing framework: https://gatling.io

¹⁷ Main railway company in France

¹⁸ Dependency injection specification of JEE

¹⁹ The framework is now deprecated but still accessible here: https://github.com/vo-lifecycle

²⁰ European company leader in office furnitures and services: https://www.elis.com

Java JEE developer, lead tech, consultant - Capgemini TS CSD, on a mission for the French Ministry of Health

SEP 2014 - FEB 2015

- Contribution to the design and development of multiple projects owned by the French Ministry of Health (DiHoMed, Potentiel Emploi, CES/GO.CARTES)
- Drafting the various documentations (HLD²¹ and LLD²²)
- Used technologies:
 - Backend: JEE / Spring (IoC, MVC, Security), Hibernate, PL/PgSQL,
 TSQL
 - Frontend: JSF, Primefaces
 - Databases: PostgreSQL, SQLServer
 - CI/CD, tests and quality: JUnit, Mockito, Jenkins, JaCoCo, Checkstyle and Findbugs
 - Deployment automation: Jenkins and shell/bash on Linux

Developer, lead tech - Capgemini TS CSD, on a mission at La Poste

SEP 2011 - MAR 2014

- Automation of mail sorting and construction of the postal address repository
- Used technologies:
 - o Backend: RESTful API with PHP, shell/bash scripts on Linux
 - o Frontend: Java GWT
 - o Databases: MySQL, Cassandra
 - o Analytics and search engine: Apache SolR
 - o CI/CD, tests and quality: PHPUnit, Jenkins
 - Deployment automation: Puppet

²¹ High Level Design

²² Low Level Design

²³ French post services

COMMUNITY AND SIDE PROJECTS

CTO, Co-founder - Uprodit

JUL 2015 - TODAY

- CTO, software architect, SRE/DevOps of the Prod'It freelancer organization developing the first social network for freelancer based in Tunisia²⁴
- Used technologies:
 - Backend: Java, Spring, CXF, OpenFeign, Vert.x
 - o Frontend: Java, Spring MVC, Thymeleaf, JQuery, Bootstrap
 - Databases: PostgreSQL, Redis (for cache)
 - Search engine: Elasticsearch
 - Analytics: Python
 - CI/CD, tests and quality: Gitlab-ci, JUnit, AssertJ, Mockito, DBUnit, Spring Test and Vertx-unit
 - o Deployment automation: Docker, Gitlab-ci, CWCloud, ansible

Linux and Java writer and Administrator — Developpez.com

JAN 2009 - JAN 2016

- Member of the administration of the first IT community's website²⁵ for French speakers
- Moderator of the Linux section from 2010 to 2012
- Moderation manager and administrator of all the website from 2012 to 2015
- Writer²⁶ since 2012 on the **Linux**, **Java** and **Databases** sections
- Development of some tools²⁷ for the writers with PHP

²⁴ The platform is available here: https://www.uprodit.com

²⁵ The website is still accessible here: https://www.developpez.com
²⁶ Tutorials and blogpost has been moved here: https://www.ineumann.fr

²⁷ The tools are available here: https://gitlab.comwork.io/developpez