

ZAKARIA KEBAIRIA

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EDUCATION

Higher School of Computer Science 08 May 1945 - Sidi Bel Abbes

Sep 2021

Master's & Engineering Degree in Computer Science (Supervised by [Pr. Rahmoun Abdellatif](#))

EXPERIENCE

Emploitic

May 2023 – Present

IT Manager

Draria, Algiers

- Modernized Emploitic's infrastructure by migrating legacy OVH/IONOS systems to a redesigned Hetzner-based architecture (Cloud + Bare-metal) with private vSwitch networks, VLANs, and Cloudflare DNS/WAF.
- Reduced infrastructure costs by 60% while improving overall performance, security, and maintainability.
- Built internal DevOps tooling in Golang (e.g., `bac11`) and standardized provisioning using Ansible roles and Terraform modules.
- Migrated GitLab 14.9.2 → 16.8.2 (LXC → Docker) for 160+ users and 288+ projects, with optimized CI/CD and automated backup routines.
- Cut backup/restore time by 78% by replacing rsync workflows with NFS-over-VPN pipelines and automated and managed backups for PostgreSQL, MongoDB, MySQL, Redis, and ArangoDB.
- Refactored CI/CD pipelines, significantly reducing integration and deployment times through advanced GitLab features.
- Built a unified observability stack (Prometheus, Grafana Alloy, Loki, Grafana) for node, application, VPN, DNS, traces, and container monitoring with structured alerting.
- Standardized Linux server configurations and resolved partitioning, naming, and compliance issues, improving system reliability.
- Implemented multi-layer security (Hetzner firewalls, `firewalld`, SSH hardening, SELinux, Fail2ban, internal PKI).
- Designing the company's long-term platform roadmap, including Kubernetes adoption and Azure migration planned for 2026.

Emploitic

May 2023 – Present

IT Manager

Draria, Algiers

- Modernized Emploitic's infrastructure by migrating from legacy OVH/IONOS to a redesigned Hetzner architecture (Cloud + Bare-metal) with vSwitch private networking, VLANs, and Cloudflare WAF/DNS, reducing costs by 60% while improving reliability and security.
- Built internal DevOps tooling in Golang (e.g., `bac11`) and standardized provisioning using Terraform and Ansible; modernized Docker-based CI/CD pipelines and upgraded GitLab 14.9.2 → 16.8.2 for 160+ users and 288+ projects.
- Implemented unified observability (Prometheus, Grafana Alloy, Loki, Tempo, Grafana) and redesigned backup/restore workflows (NFS-over-VPN), cutting recovery times by 78% across PostgreSQL, MongoDB, MySQL, Redis, and ArangoDB.
- Strengthened platform security with Hetzner firewalls, `firewalld`, SELinux, Fail2ban, SSH hardening, and internal PKI, while defining the long-term platform roadmap including Kubernetes adoption and upcoming Azure migration (2026).

Contractor

Jan 2023 – Apr 2023

System/Cloud Engineer

Remote

- Built Packer images for QEMU, AWS, and VMware and automated workflows with Bash for Namla.

- Managed AWS infrastructure using Terraform (VPCs, networking, EC2) and developed 50+ AppArmor profiles with systemd services to improve runtime security.
- Contributed to the design of scalable cloud architectures aligned with business needs.
- Deployed a high-availability Kubernetes cluster (kubeadm, HAProxy, Keepalived) for APCS (Algerian Port Community System).
- Wrote 10+ Ansible playbooks and containerized a monolithic application into microservices using Dockerfiles and Kubernetes.
- Delivered technical guidance and presentations to the APCS team on the technologies and architecture used.

LabLabee

DevOps Engineer

Oct 2022 – Jan 2023

Oran, Algeria

- Deployed OpenStack multiple times for a Network Functions Virtualization (NFV) project using OpenStack Tacker.
- Created shell scripts to automate deployment, monitoring, and user-experience-related tasks.
- Troubleshot issues and provided technical support to users, ensuring timely and efficient incident resolution.
- Collaborated with engineers in team meetings to ensure project goals were met on time and within budget.

Umaitek

System Engineer

Feb 2022 – Oct 2022

Algiers, Algeria

- Integrated multiple projects at Umaitek involving a variety of IT solutions and platforms.
- Migrated 1k+ user accounts to Zimbra mail platforms using Python and Bash scripts.
- Installed, configured, upgraded, and enhanced Linux servers, virtualization platforms (RHEL, Proxmox), cloud environments (OpenStack), containerized infrastructures (Kubernetes, Docker, Podman, LXD), and storage solutions (GlusterFS, Ceph, NFS, iSCSI).
- Resolved client tickets, provided architectural guidance to software development for resiliency and efficiency, troubleshot hosted services, and managed technical incidents and internal communication.

LABRI Research Center ESI-SBA

Real-Time Web-Based Suspicious Behavior Detection System in a Fog-Edge Distributed Architecture

6 months

Algiers, Algeria

- Designed, implemented, and deployed a fully automated multi-layer infrastructure for a real-time suspicious behavior detection platform using Deep Learning.
- Used Edge, Fog, and Cloud computing paradigms to build a distributed infrastructure.
- Worked across DevOps phases including design, code, build, test, and monitoring of the platform.

Instructor

2018 – 2021

- RedHat Certified System Administrator course (*AlphaBit Club – ESI-SBA*) 2018 – 2019
- RedHat Certified System Administrator course (*Ingeniums Club – ESI-SBA*) 2019 – 2020
- RedHat Special Course – “Become a Linux expert” (*AlphaBit’s Cells Program – ESI-SBA*) 2020 – 2021

TECHNICAL STRENGTHS

Programming Languages

Python, Golang, Bash, AWK, Lisp

OS

Linux (Red Hat, Ubuntu, Debian, Arch), BSD servers

Virtualization

KVM & QEMU, Proxmox

Monitoring

Prometheus, Grafana, Zabbix

Databases

MySQL, PostgreSQL, MongoDB

DevOps

Ansible, Kubernetes, Packer, Terraform, Podman, Docker, Docker Compose, Vagrant, GitLab

Tools

Git, Vim, Emacs, Tmux, Zsh

CERTIFICATION

RedHat Certified System Administrator (*RHCSA*)

June 2019

Juniper Networks Certified Associate (Cloud) (*JNCA*)

Oct 2019

Cisco Certified Network Associate (Routing and Switching) (*CCNA*)

Feb 2020

PERSONAL PROJECTS

[kvmcli](#): Wrapper for managing virtual machines in a KVM-based cluster. [ZARS](#): Auto-rice script using Ansible & shell script for dwm, st, and personal dotfiles. [bacli](#): A lightweight application for automating backup and restore operations for various databases. [homelab](#): Personal homelab for Kubernetes and other infrastructure services. [org-master](#): org-mode/Emacs configuration for technical workflows and thesis work.

LANGUAGES

Arabic (Native), French, English