# ZAKARIA KEBAIRIA

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### SUMMARY

Highly skilled System/Cloud Engineer with extensive experience in system engineering and a strong background in Linux and network administration. Certified in both RHCSA, CCNA and JNCA. Proficient in implementing and maintaining highly available and scalable cloud infrastructure, utilizing advanced technologies such as Kubernetes, Docker, OpenStack, and NFV. Proven track record of successful project delivery and managing cloud-based systems for a variety of clients. Additionally, I have experience as an instructor in various technical areas, including UNIX/Linux, System Administration, Network Administration ...etc.

# WORK EXPERIENCE

JAN 2023 - PRESENT System/Cloud Engineer - Contractor

Algiers, Algeria

### Namla

- Implemented Packer files to generate Namla's images across different hypervisors and cloud providers, such as QEMU, AWS, and VMware.
- · Automated tasks using Bash scripts, resulting in increased efficiency and minimized the need for manual intervention.
- Deployed and managed AWS infrastructure using Terraform files for the main infrastructure, including multiple VPCs, network configuration, and virtual machines across various regions.
- Developed AppArmor profiles for over 50 containers and associated systemd services to ensure the company's infrastructure remained secure and reliable.
- Collaborated with engineers to design and implement a robust and scalable cloud infrastructure that aligned with the company's business requirements.

# **APCS (Algerian Port Community System)**

- Deployed a highly available Kubernetes cluster using kubeadm and HAProxy, Keepalived.
- Created over 10 Ansible playbooks to manage the company's applications, which were integrated with a CI/CD pipeline for efficient and streamlined deployment.
- Created Dockerfiles for all the services that the company needed, containerized their monolithic application using Kubernetes and microservices approach.
- Deployed CI/CD pipeline using Jenkins for CD, GitLab for CI, and Kubernetes as the main infrastructure environment.
- Created multiple automation scripts using Bash script.
- Presented on the technologies used in the project to the APCS's team, providing guidance and support to other team members.

OCT 2022 - JAN Cloud Engineer - (Full-time)

2023

Lablabee – Oran, Algeria

 Deployed OpenStack several times for a Network Functions Virtualization (NFV) project using OpenStack Tacker.

- Created multiple shell scripts to automate tasks such as deployment, monitoring, and enhancing user experience.
- Troubleshot issues and provided technical support to users, ensuring that their issues were resolved in a timely and efficient manner.
- · Actively participated in team meetings and collaborated with other engineers to ensure that project goals were met on time and within budget.

### FEB - OCT 2022 System En

System Engineer – (Full-time)

Umaitek – Algiers, Algeria

- During my time at Umaitek, I helped to integrate many projects from the various IT solutions that Umaitek offers.
- Using various scripts (Python, Bash), I migrated over 1k user accounts from old mail solutions to Zimbra mail platforms.
- I also had the opportunity to install/configure, upgrade, and improve upon existing platforms (Linux servers, virtualization platforms (RHV, Proxmox), cloud environments (OpenStack), containerized based infrastructures (Kubernetes, Docker, Podman, LXD), and storage solutions (GlusterFS, Ceph, NFS, iSCSI)).
- My daily routine was like: work with product operations team to resolve trouble tickets, provide architectural and practical guidance to software development to improve resiliency, efficiency, performance, and costs, troubleshooting services in a hosted environment, technical incident management and follow-up with our customers, communication and reporting of incidents at internal level.

#### MAR - SEP 2021

# System Engineering internship (6 months)

LABRI Research Center ESI-SBA & URD-SE internship – Sidi Bel Abbès, Algeria

- As a System Engineer, I developed and deployed a completely automated multi-layer infrastructure for detecting suspicious behavior in real time using Deep Learining.
- I was in charge of designing the project infrastructure, after attending multiple review session with the client.
- For project infrastructure, we used the Edge, Fog, and Cloud computing paradigms.
- Worked in different phases of DevOps such as Design, Code, Build, Test and Monitor.
- Developed automation frameworks for a variety of infrastructure components.
- Troubleshoot, and maintain the main infrastructure throughout the project period.

#### 2018 - 2021

#### Instructor

ESI-SBA Sidi Bel Abbès, Algeria

I Taught 100+ students on the basic of UNIX/Linux, System Administration, Network Administration, RHCSA & RHCE for 3 years

2018-2019	Became a RedHat Certified System Administrator - AlphaBit Club (ESI-SBA)
2019-2020	Became a RedHat Certified System Administrator - Ingeniums Club (ESI-SBA)
2020-2021	RedHat Special Course(AlphaBit's Cells Program) – "became a Linux expert" –
	AlphaBit Club

### SKILLS

- Programming: Python, Bash/shell, C, Java, Elisp
- OS: Linux(RedHat, Ubuntu, Debian, Arch), BSD servers
- System Administration: HAProxy, Keepalived, Pacemaker, Standards Linux Permissions, ACL, SELinux, Bind, DHCP, NFS, SMB, iSCSI, GlusterFS, NFS-Ganesha, LDAP, Zimbra, Postfix.
- Virtualization: KVM & QEMU, Proxmox, VirtualBox, Vmware.
- Monitoring: Prometheus, Consul, Grafana, Zabbix.
- DevOps: Ansible, Kubernetes, Packer, Terraform, Podman, Docker, LXD, Vagrant, Git, GitHub, GitHub-Actions.
- Cloud: Openstack.AWS
- Networking: Cisco IOS, Routing & Switching Protocols, GNS3

- Tools: Vim, Tmux, Emacs, Zsh
- · Graphic Design: Inkscape, Gimp, Photoshop, Blender
- · Languages: Arabic(Native Language), French, English

## **CERTIFICATIONS**

JUL 2019 RedHat Certified System Administrator – RHCSA
OCT 2019 Juniper Networks Certified Associate (Cloud) – JNCA

FEB 2020 Cisco Certified Network Associate (Routing and Switching) – CCNA

## **PRESENTATIONS**

2018	Linux Installation Party – Yahiya Fares University(Medea)
2017	Introduction for Gnu/Linux 🗘 – Yahiya Fares University(Medea)
2017	Design – Introduction for Design World – Higher School of of Computer Science – ESI-SBA
2015	Design – Your first steps into the world of Design – Yahiya Fares University(Medea)

## **EDUCATION**

2021	Master's Degree in Computer Science, Higher School of Computer Science, SBA – Algeria
2024	(Supervised by Pr. Rahmoun Abdellatif)  Engineering Degree (Computer Science) Higher School of Computer Science SPA Algeria
2021	Engineering Degree (Computer Science), Higher School of Computer Science, SBA – Algeria (Supervised by Pr. Rahmoun Abdellatif), LABRI Research Center ESI-SBA & URD-SE internship – Sidi Bel Abbès, Algeria

# Personal Projects

- ZARS: An auto-rice script using Ansible & shell-script for my dwm, st and all of my configurations and dotfiles.
- kvmcli: A Python wrapper for managing virtual machines in a KVM-based cluster.
- homelab: My Homelab for kubernetes and other services.
- org-master: My org-mode/Emacs configuration for my master thesis.

### **AWARDS**

• 1st Place (nationally) in Graphic Design category Festival "Bahjah" • 5th/30 Place MLH orgnized by Github & Microsoft ESI-SBA "2019" • 6th/30 Place Coding Challenge ESI-SBA "2019"