

Aurélien DUBOC

DevOps/SRE Engineer | Cybersecurity enthusiast

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Paris, France @ aurelienduboc96@gmail.com Nationality : French Telecom SudParis alumni

SKILLS

DevOps Kubernetes, Helm, Docker, Vault, ArgoCD, Flux, Airflow, Terraform, Ansible, Gitlab CI, Grafana, Prometheus
GCP OVH 3DS OUTSCALE AWS Azure FortiOS Proxmox Python Bash Golang

Network Kong, Envoy, Fortigate, Palo Alto, Cisco IOS network filtering, SSL VPN tunnels, LB, HIDS, IDS, IPS, SIEM
Wazuh Loki Promtail ELK stack squid

PROFESSIONAL EXPERIENCE

Now

Mar 2023

DevOps Engineer, CLEYROP, France

- > Manage cloud (3DS Outscale and OVH) infrastructures using Infrastructure As Code
- > Manage and create python DAG/data pipelines (data processing) for data science teams using Airflow.
- > Implement internal python fastapi apis for network/firewalling management.
- > Deploy custom argoCD events and workflows for data processing and backups.
- > Enhance monitoring and observability. with 24/7 on call rotation for production issues.
- > Orchestrate backup and restoration processes (for disaster recovery and data preservation) using Velero, managing data sets, including PostgreSQL, Minio cluster, and MongoDB. Ensure data integrity and availability during backup and restore operations.
- > Design and implement custom scaling management for Kubernetes nodes (Rancher RKE2) within the Outscale infrastructure, enabling significant cost savings.
- > Spearheaded efforts to upgrade the Outscale node driver version within the Rancher environment, enhancing system stability and security, restoration of Outscale node driver versions, ensuring optimal cluster performance and reliability.
- > Streamlined service removal procedures, significantly reducing downtime and ensuring uninterrupted service availability.
- > Fix network peering issues (specific to Outscale) during deployments between VPCs
- > Conduct in-depth benchmarking and comprehensive testing of the new OKMS service delivered by Outscale, utilizing both CLI and Boto Python library.

3DS Outscale OVH Terraform Ansible Kubernetes ArgoCD Flux Helm Velero Gitlab CI/CD Airflow Python

Mar 2023

Jul 2022

DevOps Architect, CIDGRAVITY, France

- > Lead CI/CD deployments, testing, infrastructure changes for web3 applications (filecoin blockchain)
- > Manage cloud (AWS) and on premise infrastructures using Infrastructure As Code, networking, config...
- > Implement microservices, datawarehouse, analytics, API Gateway (kong), develop custom plugins
- > Ensure availability, scalability, backup/restore, implement best practices for the development team
- > Monitor production, staging and dev environments, developing and maintaining security policies
- > Install/Setup Filecoin miners up to 2 Petabytes of data, document DevOps processes

AWS Terraform Ansible Kong deek FortiOS Proxmox Prometheus Grafana Loki Promtail Icinga
Github Actions MongoDB PostgreSQL Golang Python Lua Lotus Filecoin Blockchain

Jun 2022

Jun 2021

SRE/DevOps Engineer, QUICKSIGN, France

- > Stabilize and improve cloud infrastructure (OVH Private Cloud + Google Cloud Platform)
- > Monitor and ensure the reporting of DevOps projects + Improve the CI / CD chain
- > Set up monitoring and good usability solutions as well as capacity planning monitoring
- > Lead technical changes for new projects and current infrastructure
- > Manage the transition from POCs to production

GCP OVH Terraform Helm Kubernetes Flux Ansible Prometheus Grafana Icinga GitlabCI Kafka ELK
Cerebro

Jun 2021

Jun 2020

Cloud Security Engineer, OUTSCALE, France

- > Improve hardware/software inventory for vulnerability checks and security monitoring.
- > Manage automation of vulnerabilities treatment for SOC team building a custom Natural Processing Language model binded with CVE rss feeds and OCSInventory (developing custom plugins)
- > Build several security challenges, deploying infrastructures and services using Terraform/Ansible
- > Improve security alerts by configuring Kibana watchers about logs coming from Outscale API (which is AWS compliant) via a rsyslog stack, also by improving Wazuh rules

3DS Outscale Terraform Ansible Saltstack spacy elasticsearch ejbca painless Gitlab CI ocs jira cocalc
Python Perl

<p>Sep 2019 Jun 2019</p>	<p>Security Engineer, NEXTER, France</p> <ul style="list-style-type: none"> > Working on CAN protocol, Vector CANoe software, Vector CAN Disturbance Interface VH6501. > Build a software (Python) driving CANoe through a COM API, making scenarios of cyber attacks, analyzing vulnerabilities of CAN bus architecture. <p>Python cantools win32com Git Windows system</p>
<p>Jun 2019 Jun 2018</p>	<p>Full stack developer, IMT, France</p> <ul style="list-style-type: none"> > Developing web applications to enhance data analytics. <p>Python Flask PHP Javascript Git PostgreSQL CentOS Linux system</p>

VOLUNTEER EXPERIENCES

<p>Now Sep 2017</p>	<p>President/Member of HackademINT, CYBERSECURITY CLUB, France</p> <ul style="list-style-type: none"> > Presidential function for 1 year from April 2018 to April 2019, planning weekly cybersecurity training. > Designed the club network and system infrastructure. > Participation in competitive challenges (Capture The Flag) across France and online. <p>CTFd RootMe HackTheBox OverTheWire Passcracking Cryptography Web security</p>
<p>Jun 2019 Sep 2017</p>	<p>Web Manager/Member at MiNET, INTERNET SERVICE PROVIDER ASSOCIATION, France</p> <ul style="list-style-type: none"> > Extended IT management : Servers, switches, routers, NAS and Deployment of WiFi and Ethernet enterprise network for about 1,000 members. <p>Cisco WLAN Controller Angular6</p>

PROJECTS

<p>INSIDERS</p> <p>Deploying gitlab pipelines to automate cli python library generation, developing cli wrapper for a command and control cybersecurity software, contributing to its golang api</p> <p>OpenAPIGenerator Gitlab CI/CD Python Typer Rich Ruff Poetry Golang</p>	<p>2024-2025</p>
<p>NAPOLEON</p> <p>Developing a real estate alert application for Paris area</p> <p>Distributed software architecture WebScrapping ChromeExtension Python</p>	<p>2024</p>
<p>FFTT APPS</p> <p>Developing several web apps (tournament registration systems, etc) related to table tennis french community</p> <p>Golang Sentry Python github.com/SuperPingPong</p>	<p>2023-2024</p>
<p>ON3Z.CC</p> <p>Developing a free and open-source URL shortener with premium features - Inspired by Alex Xu's book System Design Interview</p> <p>Auth0 Golang Prometheus</p>	<p>2022-2023</p>
<p>JUPYCLOUD</p> <p>Developing a JupyterHub CloudSpawner which enables JupyterHub to spawn single-user notebook servers in a Virtual Machine (on AWS, GCP, Azure or on premise) with Terraform or Boto3</p> <p>JupyterHub Kubernetes DockerSwarm Terraform Packer Ansible Python</p>	<p>2021-2022</p>
<p>TRADDE</p> <p>Developing the backend and building a scalable and resilient infrastructure for a French platform connecting independent sales agents and companies.</p> <p>Terraform Ansible GitlabCI Python-Tornado Motor MongoDB AWS S3 LambdaEdge ApiGW ECR ECS Lambda Fargate VPC</p>	<p>2020-2021</p>
<p>NEWNORMAL - UK COMPANY</p> <p>Developing an IoT software with RPi images to manage ad spaces on hand sanitizer dispensers</p> <p>Node.js MongoDB Bash RPi</p>	<p>2020</p>
<p>POC ON ANTI-SPAM PROTECTIONS OF ONLINE PAYMENT SYSTEMS</p> <p>Scaffolding of a distributed attack POC via a server cluster targeting online ticket counters bypassing the anti-spam protections of online payment systems for the purchase of bulk tickets.</p> <p>Java Python Docker Swarm Selenium</p>	<p>2019-2020</p>
<p>ROOTME API USING DISTRIBUTED COMPUTING WITH QUEUE MANAGEMENT SYSTEM</p> <p>This async API is parsing with lxml the website RootMe which deals with cybersecurity challenges in order to help developers to use the data from this website. The data is stored by workers instance in redis streams.</p> <p>Python-Tornado Docker Redis</p>	<p>2019</p>

CISCO VLAN MANAGER

2019

This API and web application enable managing VLANs on cisco devices.

Python-Netmiko Python-Flask Docker Redis

EXPANDING A PROXMOX CLUSTER AUTOMATICALLY

2018-2019

Deploy virtual machines on specific subnet on which you can get ssh with LDAP credentials.

Proxmox Ansible Qemu Bash

DEVELOPMENT OF AN AUTOMATED IT SECURITY AUDIT TOOL IN A VIRTUALIZED ENVIRONMENT.

2018-2019

Automated audit of an active infrastructure with various network and personal services running with Proxmox hypervisor. Development of a logstash plugin for lynis

Proxmox Ansible Lynis Elasticsearch Logstash Kibana LXC Qemu KVM

SELF DRIVING CAR MADE IN ASSEMBLY

2018

The car follows a black line on a circuit. The master card manages the direction and interacts with a slave card which manages the display of the data

assembly-language-programming

RECOGNITION OF HANDWRITTEN SIGNATURES ADXL335

2016-2017

Authentication of handwritten signatures without taking out the big mathematical tools.

Arduino Python PostgreSQL

AWARDS

COMPETITIVE HACKING - CAPTURE THE FLAG (CTF) - ITC HACKING COMPETITION

2018 -

- > TOP 13/100 at BreizhCTF2022 - 500 participants gathered all night for 12 hours in Rennes (02/04/2022)
- > 1st place at HackSecuReims 2020 - CTF organized for students (100 people), 600€ of cashprize for the winners (07/02/2020)
- > TOP 5/95 at Tracs2019 - DGSE (French CIA) Intelligence and Analysis Tournament (14/12/2019)
- > 2nd place on site at InsHack2019 - CTF organized by the INSA Lyon university (70 people) on site (02/05/2019)
- > TOP 7/60 at BreizhCTF2019 - 500 participants gathered all night for 12 hours in Rennes (12/04/2019)
- > 1st place at Mars@Hack - Event and Capture The Flag competition organized by the French Air Force with 1000€ of cashprize for the winners with a coin of the Cyber Defense Command (08/03/2019)
- > 1st place at HackSecuReims 2019 - CTF organized for students (100 people), 600€ of cashprize for the winners (01/02/2019)
- > 1st place at WaveStone Cybersecurity Night Out - CTF organized by WaveStone (19/12/2018)

CTF Team T35H Team HackademINT Reims Lyon French Air Force Mont de Marsan Paris cftime.org/team/45998

“ REFERENCES

Nicolas Girardi

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Nicolas Eyraud

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