

M. Khalil Ghiati

Infrastructure & Security Engineer

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PROFESSIONAL EXPERIENCE

Bouygues Telecom

Telecom Project Manager

Lyon, France

Sept 2024 – Sept 2025

- Automated data collection and qualification across **300+ telecom sites** via APIs — **+90%** operational efficiency gain
- Managed end-to-end delivery of **4 major projects** with full stakeholder reporting and milestone compliance
- Conducted **5G infrastructure security analysis** aligned with ANSSI recommendations and compliance audits
- Coordinated cross-functional teams and explored AI-based solutions for operational optimisation

■ 5G ■ LTE ■ 4G ■ Wi-Fi ■ FTTH ■ IMS ■ VoLTE ■ DWDM ■ ANSSI

CogniScan (Start-up)

ML Engineer & Project Manager

Limoges, France

Apr 2024 – Aug 2024

- Designed interactive data analysis and visualisation tools (Python, Dash, Plotly)
- Optimised **CNN architectures** for anomaly detection on medical imaging datasets
- Developed signal processing algorithms for biological signature extraction and noise reduction

■ Python ■ PyTorch ■ TensorFlow ■ Matlab ■ REST API ■ Embedded

ETEX Group

Assistant Regional IT Infrastructure Manager

Avignon, France

Jun 2023 – Aug 2023

- Deployed and administered **Centreon** monitoring covering **1,200+ endpoints** across Western Europe
- Led successful server migration from **VMware to Hyper-V** with full monitoring integration
- Hardened Linux servers following **CIS benchmarks** and ANSSI recommendations (SSH, firewall, patching)

■ Linux ■ Docker ■ Centreon ■ Hyper-V ■ Bash ■ Python ■ MySQL ■ Firewall

TECHNICAL PROJECTS

Zero Trust Network Lab — Kubernetes & Infrastructure-as-Code

[github.com/Khalil-secure/zero-trust-k8s-lab](#)

2025 – Present

- Zero Trust architecture on **Kubernetes** (k3s): namespace micro-segmentation, deny-by-default NetworkPolicies, mTLS via **Istio Service Mesh**
- Infrastructure provisioned with **Terraform** (IaC) — reproducible, version-controlled, deployable in **<5 min**
- Site-to-site **WireGuard** VPN + WAF integrated; automated certificate rotation via cert-manager
- **SIEM**: centralised logs **Loki + Grafana**, real-time anomaly alerting (lateral movement, privilege escalation)
- Secure **CI/CD** pipeline (GitHub Actions) with **Trivy** image scanning and **OPA/Gatekeeper** policy-as-code
- **MITRE ATT&CK**; attack simulations (T1021, T1046, T1190) with automated security posture reports

■ Kubernetes ■ Terraform ■ Zero Trust ■ Istio ■ WireGuard ■ Loki/Grafana ■ OPA ■ Trivy ■ MITRE ATT&CK;

Homelab SOC — Detection & Incident Response

[github.com/Khalil-secure/homelab-soc](#)

2024 – 2025

- Full SOC lab on isolated Docker infrastructure: hardened SSH, **Fail2ban**, file integrity via **inotifywait**
- **Suricata** IDS/IPS with MITRE ATT&CK-mapped; detection rules; alert correlation via **ELK Stack**
- Real-time monitoring with **Netdata** + centralised logs (auth, fail2ban, file integrity)
- **CI/CD** GitHub Actions pipeline with automated security control validation at every deployment

■ Suricata ■ ELK Stack ■ Docker ■ Fail2ban ■ Netdata ■ MITRE ATT&CK; ■ IDS/IPS ■ GitHub Actions

SKILLS

Languages: Python, Bash, Ruby, Go, C/C++, Rust

Security: Fail2ban, Suricata, IDS/IPS, MITRE ATT&CK; ELK, SSH Hardening, OPA, Trivy

DevOps: Docker, Kubernetes, Terraform, GitHub Actions, CI/CD, Git

Infrastructure: Linux, Centreon, Netdata, VMware, Hyper-V, Kubernetes

Networking: 5G, FTTH, VoIP, MPLS, Firewall
Databases: MySQL, PostgreSQL
Methods: Agile, Scrum, Jira

EDUCATION / CERTIFICATIONS

ENSIL-ENSCI — Limoges
M.Eng Electronics & Telecommunications
2022 – 2025 · Limoges, France
5G/6G networks, embedded systems, antennas.
Project with Ansys: isolation distance detection for microprocessors.

TryHackMe — Jr Penetration Tester Path
TryHackMe — SOC Level 1 (certified)
Microsoft Azure Fundamentals AZ-900
Root-Me — 100+ challenges solved
TOEIC 940/990 — Professional English

LANGUAGES & INTERESTS

Languages: English — TOEIC 940/990 (professional) · French — Fluent · Arabic — Native
Interests: Karate Black Belt (Shodan) · BJJ beginner · Hackathons (Lablab.ai, international teams) · CTF — Root-Me, TryHackMe