

Adam Boualleigue

DevSecOps – Infrastructure Architect

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About

I am a DevOps and SysOps Engineer with deep experience supporting heavy production environments where reliability, security, and performance drive every decision. I design and operate resilient, scalable architectures for organizations managing multiple projects in parallel, ensuring that infrastructure evolves strategically with business goals. Guided by a strong engineering vision focused on productivity and security, I build platforms that accelerate delivery while strengthening operational robustness.

I follow SSDLC principles to integrate security from the earliest development stages, ensuring a fully optimized and trustworthy software supply chain. My expertise spans infrastructure automation, advanced observability, chaos engineering for resilience validation, and comprehensive disaster recovery strategies to guarantee continuity. By leveraging open-source ecosystems and modern cloud-native approaches, I empower teams with a high-performing, future-ready technology foundation.

Recognized for my collaborative and solution-driven attitude, I listen closely to team needs, balance stakeholder expectations, and drive progress toward shared objectives. I thrive in environments where trust, innovation, and engineering excellence work hand-in-hand, and I enjoy turning complex operational challenges into reliable and scalable solutions.

"I don't measure success by simply getting a system live. I challenge its limits, push it into failure, and watch how it adapts. A resilient platform is one that anticipates chaos, heals without hesitation, and continues delivering excellence – even when everything around it tries to break."

Experience

GreenCodes Owner, Lead Solution & Infrastructure Architect	Mar 2025 – Present Sousse, Tunisia
Proxym IT DevOps & SysOps Engineer	Oct 2021 – Feb 2025 Sousse, Tunisia

Projects

Shahba Project Lead Solution & Infrastructure Architect	Jun 2025 – Oct 2025 Sousse, Tunisia
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As the primary architect for Shahba's digital infrastructure, I designed and implemented a highly available, scalable, and resilient environment tailored to the client's evolving business needs. I led the integration of ERPNext, Prestashop, and media management systems, orchestrated containerized deployments, and implemented AI-driven automation workflows to streamline sales, CRM, and marketing processes. Security and reliability were core pillars of the infrastructure, achieved through proactive scanning, threat detection, and declarative GitOps patterns ensuring full autonomy and rapid recovery.

- * Designed and deployed over 49 containerized services across scalable VPS clusters with Portainer orchestration.
- * Configured Nginx Proxy Manager and Cloudflare for endpoint management, SSL automation, and bot mitigation.
- * Implemented ERPNext and Prestashop with custom modules, benchmarking to support 10K+ concurrent users.
- * Managed media workflows with FileBrowser and Syncthing, enabling rapid, secure distribution of large assets across teams.
- * Built AI-powered automation workflows with n8n and corporate LLM APIs to synchronize client messages, CRM updates, and sales processes, improving operational efficiency by 70%.
- * Secured all deployments via Docker image scanning (Trivy, Hadolint, GitLeaks), enforcing rootless containers and updated OS packages.
- * Deployed Falco and CrowdSec in production with custom rules to monitor activity and detect threats, sending alerts to secure channels.
- * Designed resilient backup strategies using OpenMediaVault, NFS, RAID, and cloud backups to ensure data availability under client management.

- * Ensured full declarative infrastructure (GitOps), allowing services to be restored autonomously within 9 minutes in case of downtime.

Technologies : *Docker, Docker Compose, Portainer, Nginx Proxy Manager, Cloudflare, ERPNext, Prestashop, FileBrowser, Syncthing, n8n, OpenAI/Gemini LLM APIs, GitOps, Trivy, Hadolint, GitLeaks, Falco, CrowdSec, OpenMediaVault, NFS, RAID, VPS clusters*

GreenCodes Digital Core

Feb 2025 – Jun 2025

Lead DevSecOps & Solution Architect

Sousse, Tunisia

GreenCodes provides scalable digital infrastructure and automation services for multiple e-commerce clients, including ERP systems, AI-powered workflows, and robust media/e-commerce platforms. As the principal architect, I built a secure Kubernetes-based platform capable of delivering tenant-isolated services rapidly, while enforcing SSDLC and full GitOps practices across the organization.

- * Built a highly-available Kubernetes architecture using Rancher with distributed storage via Longhorn, ensuring multi-layer resilience and fast disaster recovery.
- * Implemented Velero for automated cluster backups and declarative recovery of Kubernetes resources.
- * Deployed ERPNext in multi-tenant mode to accelerate ERP onboarding at scale for new business clients.
- * Designed WhatsApp business automation using WAHA integrated with n8n, enabling AI-augmented messaging workflows tailored to each client's data.
- * Established a GitLab instance with full GitOps management for infrastructure, leveraging Helm charts and environment promotion workflows.
- * Integrated SSDLC and DevSecOps safeguards: enforced secure pre-commit rules, automated SAST (SonarQube), SCA and secret scanning (Dependency-Check, GitLeaks), and orchestrated DAST testing with ArcherySec + OWASP ZAP in CI/CD.
- * Centralized dependency governance using Nexus Repository and Dependency-Track, providing real-time visibility on vulnerable packages and rapid remediation across projects.
- * Designed security and scaling standards for multiple e-commerce clients, ensuring performance, tenant isolation, and operational continuity.

Technologies : *Kubernetes, Rancher, Longhorn, Velero, Helm, GitLab CI/CD, GitOps, ERPNext (multi-tenant), WAHA, n8n, Nexus, Dependency-Track, SonarQube, GitLeaks, OWASP ZAP, ArcherySec*

Bankerise Genesis

May 2024 – Jan 2025

SysOps & Infrastructure Automation Engineer

Sousse, Tunisia

Bankerise is a multi-tenant omnichannel banking solution requiring highly available, production-grade Kubernetes deployments aligned with strict security and compliance requirements. Manual setup took over 2 days per client. I designed and implemented a fully automated delivery pipeline—reducing provisioning and deployment time to just **1.5 hours** while improving reliability, auditability, and security posture.

- * Automated the provisioning of production infrastructure by designing **ProxGen**, a Terraform-based VM orchestration system for Proxmox and vSphere with Cloud-Init templates, cutting VM readiness from hours to minutes.
- * Developed **KubGen**, a hardened Kubernetes initialization toolkit built on Kubespray with extended Ansible automation for Bank-grade cluster security and HA standards.
- * Built **TeraCloak**, a fully declarative Keycloak configuration framework using Terraform providers, supporting complex multi-realm setups across versions 16 to the latest.
- * Created the unified CI/CD deployment orchestrator **Bankerise Genesis**—a GitLab-based automation pipeline chaining ProxGen + KubGen and executing the complete Bankerise installation, end-to-end.
- * Defined a GitOps model ensuring traceability, version control, and repeatability of all infrastructure and configuration changes across banking environments.
- * Reduced installation time from **2+ days to 1.5 hours**, enabling rapid onboarding of new bank clients and consistent deployments across diverse infrastructure footprints.

Technologies : *Terraform, Proxmox, vSphere, Cloud-Init, Kubernetes, Kubespray, Ansible, GitLab CI/CD, GitOps, Keycloak, Linux Hardening*

infrastrucutre cleansing

Jul 2023 – Mar 2024

SysOps & DevOps Engineer

Sousse, Tunisia

Managing and optimizing a large-scale hybrid infrastructure supporting over 1000 concurrent digital banking projects. Leading modernization, automation, and security initiatives to ensure performance, resilience, and business continuity across mission-critical workloads.

- * Migrated from vanilla Kubernetes to Rancher-managed clusters with enforced RBAC and secure OIDC access, enabling elastic provisioning, improved governance, and reduced operational cost.

- * Transitioned critical services to Kubernetes Operators (ECK for Elastic/Kibana/APM), eliminating single points of failure, improving scalability, and ensuring environment isolation per project.
- * Implemented distributed acceleration layers for GitLab CI pipelines using Nexus (artifact caching), Harbor (OCI + Helm registry), and MinIO (distributed cache) — significantly reducing bandwidth usage and pipeline execution times.
- * Deployed OWASP Dependency-Track for centralized SBOM monitoring and fast remediation of vulnerabilities across all projects.
- * Optimized and upgraded internal GitLab infrastructure: cleaned over 150GB of obsolete data and migrated to latest LTS, enhancing security and stability.
- * Strengthened SonarQube governance with modern quality gates and resource optimization, freeing major CPU, RAM, and storage capacity.

Technologies : *Rancher, Kubernetes, ECK Operator, GitLab CI, Harbor, Nexus, MinIO, SonarQube, OWASP Dependency-Track, vSphere*

Technology Governance Office

Dec 2022 – May 2023

DevSecOps Engineer – SSDLC Implementation

Sousse, Tunisia

Led the enforcement of Secure Software Development Lifecycle (SSDLC) practices across the company's project ecosystem. Designed reusable CI/CD security templates enabling development teams to adopt security-by-design with minimal friction.

- * Developed centralized GitLab CI reusable components for Java, Node.js, and container-based projects, enabling fast, standardized, and compliant pipeline bootstrapping.
- * Implemented pre-commit hooks to block secret leakage, enforce clean coding rules, and ensure unit tests are validated before merge.
- * Integrated automated SAST workflows including Gitleaks for credential exposure detection and Hadolint for secure Docker image assessment.
- * Enabled automated dependency vulnerability scanning through Dependency-Check with actionable remediation reporting.
- * Reinforced code quality governance with SonarQube pipelines and advanced plugins supporting deeper security insights.
- * Integrated DefectDojo to consolidate vulnerability scanning results and deliver real-time dashboards for IT governance and project owners.
- * Promoted early detection of regressions and improved security posture across all development teams by automating compliance checks.

Technologies : *GitLab CI, SonarQube, Gitleaks, Hadolint, Dependency-Check, DefectDojo, Pre-commit Hooks*

DockerIOS

Oct 2021 – Nov 2022

DevOps Engineer – iOS Build Infrastructure Virtualization

Sousse, Tunisia

Faced with hardware limitations of Mac Mini runners for mobile CI/CD, designed and deployed a fully virtualized and scalable macOS build ecosystem to support all iOS delivery pipelines while eliminating hardware constraints.

- * Leveraged QEMU virtualization and the Docker-OSX project to run fully functional macOS environments inside Docker containers with Xcode pre-installed.
- * Built a reusable library of macOS images enabling dynamic provisioning of multiple OS versions (legacy & latest) on demand.
- * Automated environment spin-up using orchestration scripts to deploy, configure, and register containerized macOS GitLab Runners seamlessly.
- * Repurposed legacy servers into high-density iOS build nodes, drastically boosting build capacity while reducing reliance on physical Apple hardware.
- * Significantly reduced operational costs and build queue times for more than a dozen parallel mobile projects.

Quote : *"With QEMU's power, macOS stopped being tied to a metal box — Mac Minis became just a memory."*

Technologies : *QEMU, Docker-OSX, GitLab CI, Xcode, Ubuntu, Shell Scripting*

Education

International Multidisciplinary School of Sousse

Engineering Degree in Computer Science

2019

Sousse, Tunisia

National School of Electronics and Telecommunications

Bachelor's degree in Electronics and Telecommunications

2017

Sfax, Tunisia

Lycée des Garçons

Baccalaureate Diploma in Mathematics

2014

Sfax, Tunisia

Languages

English: Fluent

French: Fluent

Arabic: Native

Technical Skills

Cloud & Infrastructure: AWS (EKS, EC2, S3, IAM), Microsoft Azure (AKS, ACR), On-Prem VMware/vSphere, OpenShift, Proxmox, Rancher, Longhorn

Containerization & Orchestration: Kubernetes, Helm, ArgoCD, Operators, Docker, QEMU, KubeSpray, Velero

DevSecOps & CI/CD: GitLab CI/CD, GitOps, SAST/DAST, SonarQube, Gitleaks, DefectDojo, OWASP ZAP, Dependency-Track, SSDLC

Infrastructure as Code: Terraform, Ansible (CaC), Cloud-Init, Keycloak Terraform Provider (TerraCloak), YAML-Driven Automation

Backend & Automation Programming: Go (Golang), Python, Bash, Event-Driven Workflows (n8n)

Monitoring & Logging: Prometheus, Grafana, Uptime Kuma, WASUH

Databases & Storage: PostgreSQL, MySQL, MinIO, distributed block storage, backup and DR practices

Security & Governance: RBAC/OIDC, Secrets Management, SSDLC Programs, Zero-Trust Concepts, Compliance by Design

Methodologies: Agile, DevOps Culture, High-Availability Design, Disaster Recovery Architecture, Site Reliability Mindset