Omar EL HACHIMI

DevOps / Generative AI Engineer 6 years of experience

Ile-de-France • 00 33 6 68 28 93 14 • oelhachi@gmail.com

Architect / Generative AI Engineer : solid track record in developing, deploying and securing large-scale software systems. Currently leading efforts at LCL to build a Generative AI platform.

Certifications

- Alyra : Alyra Blockchain Developer.
- AWS :
  - AWS Certified Cloud Practitioner.
  - AWS Certified Solutions Architect – Associate.
  - AWS Machine Learning Engineer – Associate.
  - AWS Certified Generative AI Developer - Professional (in progress)
- Kubernetes :
  - Certified Kubernetes Administrator.
  - Certified Kubernetes Security Specialist.
- CAMEO : Define and implement an innovative project within an organisation.
- IAPP : Artificial Intelligence Governance Professional
- Microsoft : Certification GitHub Copilot

Education

- **Blockchain Developer | 2022 | Alyra**
- **Information Systems Engineer | 2019 | Polytech Tours**
- **Preparatory Classes (Mathematics) | 2016**
- **Baccalaureate in Mathematics**

Skills

- **IA Generative** : OpenAI, Langchain, LlamaIndex, CrewAI, Litellm, ChromaDB, Ollama, Langsmith, Langfuse, LLM Gateway, Helicone, Jupyter, Github Copilot, Guardrails, LLM Orchestration, Prompt Engineering, Vector Database, Colpali, RAG Implementation, AI Model Deployment, Gemini, Vertex AI, CrewAI.
- **DevOps :** Kubernetes, Docker, ArgoCD, JFrog, Docker-compose, Prometheus, GitLab, CI/CD Pipeline, HashiCorp Vault, Kustomize, OPA, Terraform, Infrastructure as Code..
- **Cloud** Big query, Google cloud, AWS, Google Container Engine, Azure. Bedrock, SageMaker, Gemini, Vertex AI.
- **Code Quality & Security :** Sonar, Fortify, Slither, Mythril, Securify, SmartCheck, Sonar, KubSec , AppArmor, Seccomp, Gvisor, X-Ray, CIS.

- **Backend :** Java, Python, Spring-boot, Spring-batch, Rest, RabbitMQ, Maven, Talend, Python.
- **Blockchain :** Solidity, Chai.js, mocha.js, Ganache, Infura, Truesuite, ERC721, ERC1155, ethers, web3.js.

Professional Experience

2023 – NOW

Gen AI / DevOps | Crédit Lyonnais (Bank)| Paris

Contexte :

The objective of my team is to develop, deploy, maintain and secure internal tools for a fleet of 90 internal teams at LCL.

Responsibilities (Generative AI, DevOps, Observability)**:**

Generative AI

➡ Design and deployment of a generative AI platform enabling the creation of custom chatbots (equivalent to GPTs).

➡ The platform allows to:

- Create and configure RAG from the UI
- Have RBAC for all Chatbots
- Ability to create custom modules (integration with Confluence, Jira, etc.)
- Budget tracking and implementation of rate limiting rules.
- Advanced monitoring and debugging options.

➡ Lead the development and scaling of a generative AI platform for LCL.

➡ Supervision of development work on several use cases :

- 1 - Text-to-SQL: Automatic generation of SQL queries from text.
- 2 - Security: Assistance with vulnerability remediation (CVE).
- 3 - DevOps: Integration and optimization with Kubernetes (e.g. K8sGPT).
- 4 - Agile: Assistance with writing Jira stories.
- 5 - RAG based on Confluence data.
- 6 - Review of Kubernetes manifests to verify compliance with best practices.

➡ Collaboration with business teams to identify and implement new generative AI use cases, promoting operational efficiency and positive ROI.

➡ Raise awareness and share knowledge on generative AI and related topics through training and workshops, for various teams and LCL management.

➡ Facilitation of workshops for developers and management teams on GitHub Copilot.

➡ Definition and monitoring of KPIs to measure the ROI of GitHub Copilot usage..

➡ Conducting a comparative study between GitHub Copilot and Continuous Dev.

➡ Strategy for solving Bedrock quota issues.

➡ Monitoring security and compliance of different use cases (EU AI ACT).

DevOps

➡ Maintenance of base images used to deliver all applications within LCL.

➡ Creation and maintenance of pilot project illustrating all Kubernetes, Docker and GitLab CICD best practices to be followed at LCL..

➡ Kubernetes resource allocation, Fixing CPU throttling issues, etc …

Observability

➡ Definition and implementation of a naming standard to facilitate automation of Dynatrace Dashboard creation.

➡ Collaboration with different stakeholders to ensure implementation of the new standard.

➡ Automation of Dynatrace dashboard creation.

➡ Leading development work on Endpoints necessary for automating Dynatrace dashboard creation.

Technical Environment :

- **DevOps :** (Kubernetes, Docker, ArgoCD, JFrog, Docker-compose, Prometheus, GitLab, CI/CD Pipeline, HashiCorp Vault, Kustomize, OPA, Dynatrace)
- **Generative AI & MLOps :** (OpenAI, Langchain, LlamaIndex, CrewAI, Litellm, ChromaDB, Ollama, Langsmith, Langfuse, LLM Gateway, Helicone, Jupyter, Github Copilot, DeepEval, Ragas, Guardrails, LLM Orchestration, Prompt Engineering, Vector Database, Colpali, RAG Implementation, Neural Networks, Machine Learning Pipeline, AI Model Deployment)
- **Cloud :** (AWS Bedrock, AWS SageMaker, AWS Lambda, AWS EC2, AWS S3, Offre privé Cagip, OpenAI API Integration, GCP Vertex AI, GCP BigQuery, Cloud Architecture, Microservices, Containerization, Cloud Security, Multi-cloud Strategy)
- **Security and Compliance :** (SonarQube, KubeSec, AppArmor, Seccomp, Gvisor, AWS X-Ray, CIS Benchmarks, SAST/DAST, Container Security, Vulnerability Assessment, Security Compliance, Zero Trust Architecture, IAM, Security Automation, Penetration Testing, AI EU ACT)

2022 – 2023

DevOps | SoLocal | Paris

Context :

The objective of my team was primarily focused on a solution dedicated to recording, processing and tracking advertising campaigns sold to clients.

Responsibilities :

➡ CI/CD Pipelines: Implementation and maintenance of GitLab pipelines.

➡ Docker and Kubernetes: Management and optimization of containers and services with Docker and Kubernetes.

➡ Full stack Development: Full stack development, code review, (Spring, Angular).

➡ BigQuery: creation and monitoring of batch jobs to transform data in BigQuery.

➡ Cloud Storage & Cloud Functions: Writing and monitoring of Cloud Functions.

➡ Code review: (Java, Spring Boot, Spring Batch).

Technical Environment :

- **DevOps** (Kubernetes, Docker, ArgoCD, JFrog, Docker-compose, Prometheus, GitLab, CI/CD Pipeline, HashiCorp Vault, Kustomize, Maestro, Marathon, Prometheus, Kibana)
- **Architecture & Développement (** Angular, Spring-boot, Java, Rest, Maven, TDD, DDD , Microservices, Test-Driven Development, Domain-Driven Design, Microservices Architecture, Spring Batch Processing, API Gateway, Code Review)
- **Cloud** (GCP,Big Query ETL Pipeline, Data Transformation, Batch Processing, Data Analytics, Event-Driven Architecture, Serverless Computing, Cloud Native Development)
- **Securité & Conformité** (SonarQube, KubeSec, AppArmor, Seccomp, Gvisor, AWS X-Ray, CIS Benchmarks)

2020 – 2022
Backend Developer | Orange | Paris

Context :

The activity focuses primarily on developing innovative Java solutions for managing event flows exchanged between various Orange teams.

Responsibilities :

➡ Migration to SAAS: Migrate the main product from (Conf) mode to SAAS mode.

➡ Benchmarking: Benchmarking, stress tests and improvement of the solution architecture.

➡ CI/CD Pipelines: Implementation and maintenance of GitLab pipelines.

➡ Scrum Master: Fulfill the role of Scrum Master for 1 sprint out of 4 (organization of Scrum ceremonies, etc.).

➡ Gestion des déploiements : Préparation et conduite des mises en production.

➡ Back-end Development: Java development, using DDD architecture.

➡ Code review: (Java, Spring Boot, Spring Batch).

➡ Incident: Incident management (infrastructure, code).

➡ Application Containerization: Management and optimization of containers for the application.

Technical Environment :

- **DevOps** (Kubernetes, Docker, ArgoCD, JFrog, Docker-compose, Prometheus, GitLab, CI/CD Pipeline, HashiCorp Vault, Kustomize, Maestro, Marathon, Prometheus, Kibana)
- **Architecture & Développement** (Java, Spring Boot, Spring Batch, Architecture DDD, TDD, Apache Flink, Maven, API REST, Microservices, Event-Driven Architecture, Flux d'Événements, Migration SAAS, Tests de Performance)
- **Cloud** AWS (S3 , Lambda functions , ECS …)
- **Cloud AWS & Sécurité** (AWS S3, AWS Lambda, Amazon ECS, Services Managed AWS, Sonar, Fortify, Analyse de Code, Application Security, Tests de Vulnérabilité)

2018 – 2020
FullStack Developer | Worldline | Paris

Context :

Design and development of a web application aimed at industrializing the creation of a private Cloud platform within Worldline..

Responsibilities:

➡ Development, deployment and maintenance of REST Reporting APIs..

➡ Generation of PDF Word Excel Reportsl.

➡ Development, deployment and maintenance of dashboards.

➡ Full stack application development.

➡ Creation, testing and deployment of ETL Jobs to feed a data lake that enables reporting (Talend and Spring Batch).

➡ In collaboration with business teams, Creation of data structure for the database and Data Lake, allowing to have the necessary data for reporting modules.

Technical Environment :

- **DevOps** (Kubernetes, Docker, ArgoCD, JFrog, Docker-compose, Prometheus, GitLab, CI/CD Pipeline, HashiCorp Vault, Kustomize, Maestro, Marathon, Prometheus, Kibana)
- **Architecture & Développement** (Java, Spring Boot, Spring Batch, Architecture DDD, TDD, Spring batch, Maven, API REST, Microservices, Event-Driven Architecture, Flux d'Événements, Migration SAAS, Tests de Performance)
- **Security** (Sonar, Fortify, Analyse de Code, Application Security,)

Personal Experience

2022 – 2023

Architect / Blockchain Developer | BacchusVault | Paris

Context :

The implementation of a decentralized application enabling low-cost access to fine wines and spirits through "Fractional Non Fungible Token"..

Responsibilities:

➡ Work with business teams to understand their needs, explain technical possibilities and propose improvements inspired by Web 3 projects (e.g. tokenomics).

➡ Build the project's smart contracts with tests.

➡ Develop different modules of the smart contract application (Solidity, ERC1155).

➡ Perform unit tests Security audit of smart contracts.

2022 – 2023

FullStack Developer | OptimizPack | Paris

Responsibilities:

➡ Design, implementation and deployment of the application. I designed and implemented a 3D bin packing algorithm. The algorithm aims to optimize space within a truck taking into consideration several constraints :

- the fragility of packages.
- the possibility of making rotations..
- the delivery order..
- the stability of the truck.

I developed a web application using a specific algorithm. This application takes as input a list of packages and the dimensions of a truck, then proposes a solution to position each package in the truck using a 3D visualization.