

# Saoud Yahya

AI/ML ENGINEER | DEVOPS SPECIALIST | CLOUD NATIVE CERTIFIED

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## Professional Summary

AI/ML Engineer and DevOps specialist with expertise in cloud-native technologies, microservices architecture, and machine learning applications. Proven track record of building scalable systems from concept to deployment, with experience in computer vision, NLP, and distributed systems. Winner of Water4Future Hackathon and passionate about developing accessible AI solutions.

## Education

- **Master's in Artificial Intelligence**, Semlalia Faculty of Sciences, Marrakech *Oct 2024 – Present*
  - Focus on advanced AI methodologies and applications
  - Research in mechanistic interpretability of neural networks
- **Bachelor's in Information Systems and Networks Engineering**, Higher School of Technology, Safi *Jan 2023 – Jul 2024*
  - Specialized in network architecture and system administration
  - Strong foundations in software engineering and database management
- **Diploma in Computer Engineering**, Higher School of Technology, Safi *Jan 2021 – Jan 2023*
  - Core computer science principles and programming fundamentals
  - Specialized in system design and software development

## Professional Experience

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| Jan 2024 – Apr 2024, Casablanca  | <b>Country-tech –</b><br>DevOps/Web Developer<br>Intern |
| <ul style="list-style-type: none"><li>• Architected and deployed 5-microservice system using Spring Boot, RabbitMQ, and Node.js, improving system scalability by 40%</li><li>• Implemented service discovery (Eureka) and JWT-based authentication for secure inter-service communication</li><li>• Developed responsive React frontend and managed API Gateway for seamless user experience</li><li>• Automated CI/CD pipeline with Jenkins and containerized services with Docker, reducing deployment time from hours to minutes</li><li>• Integrated distributed tracing with Zipkin for enhanced system observability and debugging</li></ul> |   |
| Apr 2023 – Jun 2023, Casablanca  | <b>Soread 2M –</b> Web & Mobile<br>Developer Intern     |
| <ul style="list-style-type: none"><li>• Developed full-stack web and mobile applications that improved IT equipment management efficiency by 30%</li><li>• Built responsive web application using HTML5, CSS3, and PHP with React Native mobile companion app</li><li>• Designed and implemented RESTful API backend using Laravel with MySQL database integration</li><li>• Managed database operations through PhpMyAdmin for optimal data organization and retrieval</li></ul>  |   |

## Key Projects

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### SEE Glasses: AI-Powered Accessibility Solution

[View Project](#)

- Developed comprehensive accessibility solution for visually impaired users using multimodal AI processing
- Integrated YOLOv9 for object detection, ViT-GPT2 for scene description, and Whisper ASR for voice interaction
- Built hardware-software integration using ESP32-CAM, Arduino, and React Native mobile application

### Bio Data Extraction - Animal Named Entity Recognition

[View Project](#)

- Developed innovative NER system for extracting animal entities from scientific PDFs using self-supervised learning techniques
- Overcame traditional NER limitations, achieving superior performance compared to BERT baseline models while reducing computational costs
- Created scalable solution for biodiversity research and scientific literature analysis across multiple disciplines

### Enterprise E-Commerce Microservices Platform

[View Project](#)

- Architecting scalable platform using Spring Boot, Go, PostgreSQL, MongoDB, Redis, and Apache Kafka
- Implementing OAuth2 authentication with multi-tier rate limiting (IP/User/API-key based) for enterprise security
- StatefulSets with Persistent Volumes (PV) and Persistent Volume Claims (PVC)
- Deploying infrastructure using Terraform on AWS EKS with automated GitOps workflows via ArgoCD
- Managing Kubernetes deployments with Helm charts and container images through AWS ECR
- Ensuring code quality with SonarQube integration and comprehensive monitoring via Prometheus/Grafana stack
- Building full-stack observability using ELK stack, Zipkin tracing, and custom monitoring dashboards

## Technical Expertise

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**Programming Languages:** Python, JavaScript, Java, PHP, SQL, Go

**AI/ML Technologies:** TensorFlow, PyTorch, Scikit-learn, Pandas, LSTM, Transformers, Computer Vision, NLP

**Web Technologies:** React, Node.js, HTML5, CSS3, Laravel, RESTful APIs

**Cloud & DevOps:** Docker, Kubernetes, AWS EKS, AWS ECR, Jenkins, Terraform, ArgoCD, Helm, Prometheus, Grafana

**Microservices:** Spring Boot, Apache Kafka, RabbitMQ, Eureka, JWT Authentication

**Databases:** PostgreSQL, MySQL, MongoDB, Redis, Data Warehousing

**Code Quality & Security:** SonarQube, OAuth2, Multi-tier Rate Limiting

**AI/ML Tools:** YOLOv9, ViT-GPT2, Whisper ASR, OpenCV, Kaggle

## Languages

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**Arabic:** Native    **English:** Proficient    **French:** Advanced

## Certifications

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- **CKA – Certified Kubernetes Administrator**, The Linux Foundation ([Verify](#))    **KCNA – Kubernetes and Cloud Native Associate**, The Linux Foundation ([Verify](#))    **LFS250 – Kubernetes and Cloud Native Essentials**, The Linux Foundation ([Verify](#))