



**ISMAIL LAHBARI** *Software Engineer | DevOps/ Cloud Specialist*

📍 Bourgogne, Casablanca, Morocco    ✉ lahbariismail@gmail.com    ☎ +212684830200  
🔗 github.com/ismail-la    🔗 linkedin.com/in/ismail-lahbari    🔗 https://ismail-lahbari.vercel.app/

**EDUCATION**

**Software Engineering Program, ALX/Holberton school**  
03/2023 – 04/2024 | Casablanca, Morocco  
Completed in partnership with Holberton School.

**Master's degree in Software Engineering, FST SETTAT**  
2015 – 2017 | Settat, Morocco

**Bachelor's degree in computer engineering, Hassan II Ain chock University**  
2011 – 2014 | Casablanca, Morocco

**High School Diploma in Science math, Othman ibn affan high school**  
2010 – 2011 | Casablanca, Morocco

**SKILLS**

**OS:** Linux/UNIX, Ubuntu , Windows, macOS

**Software development tools:** Git, GitHub, NPN/Yarn, Slack, Discord, IDE (VS, VS code, PyCharm, Dev Tools, Jest Unit Testing.), Vim and Emacs)

**Testing & QA Tools:** Robot Framework, Jenkins, Postman, Cypress, Selenium, Pytest, Unit Testing (Python, JavaScript), API Testing, Functional & Regression Testing, CI/CD QA Pipelines

**Project management:** Agile/Scrum methodologies, Teams, Notion, JIRA, Trello

**Testing & Quality & Debugging:** Pytest (Python), Jest (JavaScript), Unit testing, Selenium, Jest, Cypress, Postman for API testing

**AI & ML:** GenAI, LLMs, AI Tools, Prompting IA

**Knowledge of Oracle databases, Apache Cassandra, PostgreSQL, MS-SQL and Exchange, SharePoint applications**

**Strong understanding of social media platforms and analytics**

**System Integration (APIs, Microservices, Web services)**

**Web Scraping & Automation**  
BeautifulSoup, Selenium, Scrapy, Requests, API-auth (NextAuth.js)

**Programming:** HTML5/CSS3, JavaScript, SQL, Python, TypeScript, Java, C/C++, OOP, SASS, PowerShell, RESTful API, GraphQL, VB, CNC

**Database:** Advanced SQL & Data Optimization/MongoDB/MySQL/PostgreSQL, Redis, RabbitMQ, Kafka, Oracle, Apache Cassandra, MS-SQL, ChromaDB

**WordPress Development (Themes, Plugins, Customization)**

**DevOps & Cloud:** Docker, Kubernetes, Cloud Services (AWS, Azure), Azure (App Services, AKS, Blob Storage, DevOps), CI/CD (Jenkins, GitHub Actions), Terraform, Ansible, Jenkins

**Administrative tools:** Active Directory, PowerShell, Bash

**Data Visualization, Data Analysis (data management)**

**Network monitoring (Ethernet, Wan and Wifi), security (Proxy, antivirus, firewall).**

**Orchestration & Automation (Scripting, Bash, PowerShell, Python automation, Ansible, Terraform, OpenStack)**

**Network Management, Systems Admin, Helpdesk Supervision, Cloud Infrastructure**

**Monitoring & Logging**  
Prometheus, Grafana, ELK Stack

**PROFILE**

DevOps/CloudOps & Full-Stack Software Engineer with hands-on expertise in building secure, scalable, and automated infrastructures across Azure and AWS. Passionate about driving CI/CD, infrastructure as code, and system reliability. Experienced in DevSecOps, microservices, and AI-integrated systems. Seeking to contribute to high-impact, cloud-native environments that value innovation and resilience.

**LANGUAGES**

English    ● ● ● ● ●  
French    ● ● ● ● ●  
Arabic    ● ● ● ● ●

**Frameworks/Libraries:** React, Node.js, Express.js, Django, Flask, Fast API, Docker, Kubernetes, WordPress, Shopify

**UI/UX Design:** Figma, Responsive Design, jQuery

**Virtualization:** VMware, HyperV, VirtualBox

**Monitoring & Logging:** KPI dashboards, alerting systems, Prometheus, custom log processors

**Web Servers:** Apache, Nginx

**Security Management:** FIREWALL, PFSense, Sonicwall

**Networking:** Wireless, VPN, TCP/IP, DHCP, DNS, LAN/WAN, VPN, Firewall, NFV, BGP, MPLS, ISIS, OSPF

**Cybersecurity (Security protocols, Network security, Penetration testing)**

**Computer hardware:** Installation, troubleshooting, repair and upgrade

## WORK EXPERIENCE

### Full Stack & DevOps Engineer, Valhko

10/2024 – present | London Area, United Kingdom

#### ■ Key Contributions:

- Led full-stack development across ARYA, an AI career platform serving (1,000+ users), offering chatbot guidance, resume feedback, job boards, personalized learning pathways and tools for job applications and upskilling.
- Engineered ARYA's Key Modules:
  - V1: Integrated chatbot and career profile.
  - V2: Developed an agentic workspace with DeepSearch, CompanySearch, InterviewSim, and analytics dashboards.
  - V3: Created job boards, AI-curated feeds, and learning pathways.
  - V4: Designed scalable microservices for AI marketplace, user feeds, post-sharing, chat, and notifications.

Architected and implemented a modular microservices ecosystem—AI agent marketplace, user feeds, notifications, analytics—using Django, FastAPI, PostgreSQL, and ChromaDB.

- Built responsive, TypeScript-first UI in Next.js/React with Tailwind CSS, D3.js dashboards, drag-and-drop workflows, and real-time updates.
- Integrated GPT-powered LLMs and RAG pipelines for job-fit scoring, resume parsing, and skill-gap detection.
- Engineered subscription & referral system with Stripe, PayPal, and Payscale—automating discount codes, token usage tracking, and secure checkout flows.
- Containerized services using Docker, enabling consistent local development, seamless deployment, and microservice isolation.
- Cloud & DevOps: Deployed on Azure using App Services and AKS; automated infrastructure with Terraform and CI/CD pipelines (GitHub Actions, Azure DevOps)
- Enforced DevSecOps best practices: vulnerability scanning, access controls, GDPR-compliant data handling, and Azure Security Center integration.
- Enhanced observability and reliability using Azure Monitor, Application Insights, and centralized logging—achieving 99.9% uptime.

### Freelance Full-Stack developer, Upwork

07/2023 – present

- Developed and deployed web applications using Next.js, React, Node.js, and Django.
- Integrated APIs and cloud solutions (AWS, Azure) into client projects.
- Specialized in responsive design, SEO optimization, and automation.
- Successfully led projects from conception through deployment, ensuring high client satisfaction and delivering scalable, efficient solutions.

### Software Engineer, alx\_africa

02/2023 – 04/2024

- Gained hands-on experience in front-end and back-end development, with a focus on creating scalable software solutions.
- Built numerous projects using a range of programming languages and frameworks to solve real-world challenges.
- Applied industry best practices in project management, communication, and collaboration.
- Enhanced problem-solving abilities and soft skills essential for success in the tech industry.
- Engaged with a dynamic community of tech professionals.
- Developed a full-stack AirBnB clone, handling front-end, back-end, and database integration (see section projects)
- Created a modern, responsive portfolio website using Next.js 14

### Software Engineer, L&H Computer

2020 – 2022 | Casablanca, Morocco

### Full-Stack Developer Intern, CodeAlpha

08/2024 – 10/2024

#### ■ Key Responsibilities:

- Developed a full-stack age calculator application (React on the front end, Node.js/Express on the back end with REST API handling).
- Implemented a basic MVC structure with Express for routing, controllers, and custom middleware.
- Integrated simple authentication and error handling using middleware logic.
- Used Postman for API testing and created technical documentation.
- Collaborated in an Agile environment, regularly publishing deliverables on GitHub and LinkedIn.

## PROJECTS

### ARYA Platform

10/2024 – present

- Architected and developed ARYA's full-stack application (Next.js, Django, FastAPI).
- Deployed microservices on Azure AKS with Terraform and Ansible.
- Integrated LLM-based services with scalable infrastructure.
- Built CI/CD workflows and enforced DevSecOps policies across services.

### Portfolio website,

Developed with Next.js 14 & Deployed on Vercel

03/2024 – 04/2024

- Created a modern, responsive portfolio website using Next.js 14 showcasing personal and professional projects
- Features include interactive chatbot, detailed project sections, and SEO optimization
- Enhanced user engagement by 25% through interactive features
- Deployed on Vercel for optimized performance and seamless hosting, the website demonstrates expertise in full-stack development and front-end design.

### Simple POS Microservices System, Node.js |

Express.js | MongoDB | RabbitMQ | Docker |

Microservices Architecture

04/2025 – 04/2025

- Built a simplified Point of Sale (POS) system using a microservices architecture.
- Developed two services:
- Implemented asynchronous messaging with RabbitMQ for service-to-service communication.
- Containerized the full system using Docker and orchestrated with Docker Compose.
- Designed REST APIs for creating and fetching orders and inventory data.
- Ensured scalability and decoupling between services, following real-world backend engineering practices.
- Tools & Technologies: Node.js, Express.js, MongoDB, Mongoose, RabbitMQ (amqp), Docker, Docker Compose, Postman.

### AirBnB Clone Project, Built with Python, Flask, and SQLAlchemy | Deployed with Fabric and CI/CD

07/2023 – 04/2024

- Developed a full-stack AirBnB clone, handling front-end, back-end, and database integration.
- Built the backend and command interpreter with Python, enabling core data operations.
- Designed responsive static pages using HTML and CSS.
- Integrated MySQL for data management with SQLAlchemy ORM.
- Created a dynamic web interface using Flask, RESTful API, and JavaScript (jQuery).
- Deployed the application across multiple servers using Fabric and CI/CD methodologies.

### Presence Management Application with RFID Integration

01/2016 – 04/2016

Overview: This project focuses on developing a Presence Management System that integrates RFID technology for attendance tracking. The system automates personnel monitoring by using an RFID reader and identity cards to register user entries and exits.

- Frontend: Vue.js for dynamic and responsive UI.

## IT Engineer, Mup Maroc

2018 – 2020 | Mohammedia, Morocco

As an IT Engineer, I played a key role in managing, maintaining, and optimizing both hardware and software infrastructure for enterprise clients and internal operations. My responsibilities spanned across system administration, network management, and user support, with a strong focus on delivering reliable and secure IT solutions.

Key Responsibilities:

- Installed, configured, and maintained operating systems (Windows/Linux), workstations, servers, and network devices.
- Provided Level 1 & 2 technical support for hardware, software, and connectivity issues for clients and internal teams.
- Administered Active Directory, user permissions, email configurations, and VPN setups.
- Deployed and monitored antivirus, backup, and data recovery solutions to ensure system integrity and business continuity.
- Managed routine maintenance, updates, and troubleshooting to minimize downtime and optimize performance.
- Contributed to internal IT projects including system migrations, inventory management, and network upgrades.

Technologies Used: Windows Server, Linux, Active Directory, Office 365, VPN, Firewalls, Networking (Cisco, TP-Link), Remote Desktop Tools

## Graduate Project – Software Engineering Intern, OCP Group

03/2017 – 07/2017 | El-Jadida, Morocco

As part of my Master's degree in Software Engineering, I completed a graduate project at OCP Group focused on developing a full-stack web application to optimize maintenance operations across industrial sites. The solution aimed to digitize work order tracking and enhance operational efficiency.

Key Contributions:

- Built a responsive front-end using React, Next.js, and TypeScript, following OCP's UI/UX standards.
- Developed a robust backend with Django (Python) to handle business logic and API endpoints.
- Designed and managed the database architecture using MySQL, ensuring data consistency and scalability.
- Deployed the application on AWS using EC2 and RDS services, ensuring high availability and secure access.
- Collaborated with engineering teams to gather requirements, test features, and iterate based on user feedback.

Technologies Used: React, Next.js, TypeScript, Django (Python), MySQL, AWS (EC2, RDS)

## Graduate Project – IT Systems & Network Engineering Intern, OCP Group

04/2015 – 06/2015 | El-Jadida, Morocco

As part of a team of engineering interns for our Bachelor's degree in Computer Engineering, we collaboratively led a critical infrastructure upgrade project at L&H Computer. The objective was to modernize the company's IT systems and enhance network performance and security across departments.

Project Focus: Group project focused on the full redesign and deployment of a secure, scalable IT infrastructure—supporting over 100 endpoints—with improvements to server environments, internal tools, and support systems.

Key Contributions & Achievements:

- Collaborated in designing and deploying a secure LAN/WAN network using Cisco routers and switches, leading to a 40% reduction in latency.
- Participated in the migration to Windows Server 2019 with Active Directory integration, improving centralized access and user management.
- Co-developed and scripted automated backup and software deployment tasks using PowerShell, increasing IT team efficiency.
- Built an internal ticketing system using PHP and MySQL with the team, cutting down IT support resolution time by 50%.
- Contributed to a full-scale network security audit, including firewall configuration and antivirus deployment to ensure compliance and reliability.

Technologies Used: Cisco IOS, Windows Server 2019, PowerShell, PHP, MySQL, VMware, Wireshark, Ubiquiti

- Backend: Node.js (Express) for API and data processing.
- Database: PostgreSQL for efficient data storage and management.
- Hardware: RFID reader and cards for automated attendance tracking.
- Deployment: Dockerized app hosted on Azure/AWS for scalability.
- Security: JWT Authentication for secure access control.

## Simple shell

05/2023 – 06/2023

I single-handedly developed a lightweight and user-friendly Unix-like shell designed to provide a simple and efficient command-line interface. As the overall project manager, I handled the design, implementation, and testing from scratch. The main goal was to create a functional shell capable of executing basic commands, handling input/output redirection, and supporting custom internal features.

- Designed a command parser to interpret and execute user input.
- Supported I/O (input/output) redirection to a file.
- Implemented simple and useful internal commands.
- Handled errors with explicit messages for a better user experience.
- Complied with POSIX standards to ensure cross-platform portability.

Technologies: C, Git, Linux, VS Code

## CERTIFICATES

- Microsoft Certified: Azure Fundamentals (in progress)
- AWS Certified Solutions Architect (in progress)
- Programming Hub Certifications (Python, HTML/CSS/JS, Next JS, Express JS, Node JS, Typescript, React Development, DevOps, SQL, SEO, Cloud Computing, UI/UX, IOT)
- Cisco Certified Network Associate (CCNA)
- ALX AiCE - AI Career Essentials
- Sales force S001

## INTERESTS

- Hobbies: Football, bodybuilding, reading, travel, programming, tech trends, online gaming
- Soft Skills: Problem-Solving & Critical Thinking, Project Management (Agile methodologies, Jira), collaboration and teamwork, time management, adaptability, leadership, customer service, analytical thinking, innovation and creativity

## AWARDS

### Fundamentals of Generative AI Badge, Microsoft

13/07/2024

Acquired deep understanding of generative AI, including language models, prompting, and copilots.