

SOUHAIL EL MAHDANI

Blockchain & Smart Contract Engineer ◇ Open to relocation within Europe

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PROFESSIONAL SUMMARY

Early-career Blockchain & Smart Contract Engineer with around one year of professional experience building secure public and permissioned DLT solutions. Hands-on experience with **Solidity/EVM**, ERC-20 and ERC-721 contracts, Hyperledger Fabric, Go chaincode, and Web3 application integration. Security-focused background spanning smart-contract access control, transaction validation, privacy-preserving applications, API security testing, and DevSecOps. Particularly interested in tokenised financial instruments, invariant-driven testing, audit-ready contract development, and resilient digital-asset infrastructure.

TECHNICAL SKILLS

Smart Contracts & EVM: Solidity, Ethereum, ERC-20, ERC-721, Hardhat, Foundry, Web3.js, smart-contract access control

Permissioned DLT: Hyperledger Fabric, Fabric Gateway, Go chaincode, Chaincode-as-a-Service, private-network patterns

Security & Cryptography: zk-SNARKs, role-based access control, transaction validation, OWASP ZAP, Burp Suite, Nessus, SonarQube

Software Engineering: JavaScript, TypeScript, Go, Java, Python, Node.js, Express, Spring Boot, REST APIs, microservices

Data & Applications: React, Next.js, PostgreSQL, MongoDB, MySQL, MinIO

DevOps & Delivery: Docker, GitLab CI/CD, Jenkins, AWS, Elastic Stack, Ansible, Git, Agile/Scrum, Jira

Current Technical Focus: Foundry fuzz and invariant testing, gas/security profiling, audit preparation, tokenisation architecture

EXPERIENCE

Blockchain & Web Engineer — Mohammed VI Polytechnic University

Sep 2025 – Present

Benguerir, Morocco

- Contribute to the architecture and implementation of a permissioned **Hyperledger Fabric** platform for supply-chain traceability and carbon-footprint tracking.
- Develop deterministic **Go chaincode** using Chaincode-as-a-Service, enforcing role-based permissions, input validation, approval rules, and controlled ledger state transitions.
- Implement on-chain calculation and aggregation workflows while preserving traceability and consistent business rules across transactions.
- Integrate a Node.js API, Fabric Gateway, Next.js frontend, and MinIO storage to connect blockchain state with application services and off-chain data.

Web3 Developer Intern — Marketing Confort

Jun 2024 – Aug 2024

Remote

- Developed **ERC-20 and ERC-721** smart contracts with Solidity and integrated them into Next.js applications using Web3.js.
- Used Hardhat and Foundry tooling during smart-contract development and automated DApp delivery through GitLab CI/CD.

Full Stack & Security Engineer Intern — Mohammed VI Polytechnic University

Feb 2025 – Aug 2025

Rabat, Morocco

- Conducted application security assessments with OWASP ZAP, Nessus, and Burp Suite and documented vulnerabilities and remediation priorities.
- Deployed Elastic Stack monitoring and automated repeatable infrastructure operations using Ansible.

- Delivered and deployed a React, Django, REST API, and PostgreSQL platform using Docker and GitLab CI/CD.

SELECTED BLOCKCHAIN PROJECTS

Ethereum Token Contracts – ERC-20 and ERC-721 contracts with Solidity, Hardhat/Foundry tooling, Web3.js integration, and automated DApp deployment.

Anonymous Voting DApp – Privacy-preserving Ethereum voting application using Solidity and zk-SNARKs.

Enterprise Carbon Tracking DLT – Fabric network with Go chaincode, RBAC, validated state transitions, Node.js/Fabric Gateway integration, and off-chain storage.

EDUCATION

Computer Science Engineering, ENSA Berrechid 2022 – 2025

Technical Degree in Computer Science, ENS Marrakesh 2020 – 2022

LANGUAGES

English: Advanced ◊ **French:** Advanced ◊ **Arabic:** Native ◊ **Spanish:** Beginner