# **Hachicha MOEZ**

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**in** moezha

• SenorBlockchain

#### **SUMMARY**

I'm a software engineer passionate about innovative technologies, I have solid experience in frontend development (ReactJS) and backend development (Node.js, JS/TS, Python). I have also contributed to research and development (R&D) projects in various fields such as blockchain, artificial intelligence (AI), cryptography/security and digital identity. I have experience in configuring CI pipelines on GitLab, as well as using Google Cloud Platform (GCP), particularly in managing IAM roles, setting up firewalls, and configuring load balancers. Additionally, I have worked on virtual machine configuration, handling port management, using PM2 for background processes and managing applications...

This year, I submitted an article on blockchain to the CRISIS 2024 conference, which was accepted, and I have also submitted two journal papers, for which I am currently awaiting responses.

#### Education

#### ENIS -NATIONAL SCHOOL OF ENGINEERS OF SFAX, Computer Science

Sept. 2019 to May 2022

• **Coursework:** Algorithms, AI, Cloud, Design Patterns, OOP, Advanced Mathematics, Security

# **IPEIS -SFAX PREPARATORY INSTITUTE FOR ENGINEERING STUDIES**, Preparatory Cycle (PTSI),(rank 81/980)

Sept. 2016 to May 2019

• **Coursework:** Advanced Mathematics, Physics, Chemistry, Computer Science, Engineering Fundamentals

### Experience \_\_\_\_\_

#### **Orange Group - Sofrecom Tunisia**, Software Engineer

SFAX, TUNISIA Jan 2022 - now 2 years and 9 months

- Energy Trading Platform:
  - Implementation of the frontend and backend using ReactJS/Node.js (TypeScript)
  - Preparation of the CI pipeline in GitLab and runners on dev/prod machines
  - Development of event consumption services with RabbitMQ and WebSockets (Node.js)
  - Development of the smart contract part (Solidity) and launching a Quorum blockchain network on multiple virtual machines
  - Participation in writing an article for Springer (awaiting response).
- Patient Consent Project using Self-Sovereign Identity:
  - Creation of a ReactJS and NodeJS application.
  - Integrated self-sovereign identity (SSI) and blockchain technologies (hyperledger Indy/Aries Agent).
- Transformation of a PDF contract into a smart contract :
  - OCR, LLAMA 3.1 OLLAMA
  - Frontend development with ReactJS, backend with Python Flask
  - Preparation of a scientific article
- Price Prediction of Cryptocurrencies Using Data from Centralized Exchanges:
  - Developed a system to collect real-time data from over 20 centralized exchanges via WebSockets and nodejs.
  - Utilized scikit-learn and python to generate predictive models for cryptocurrency prices.

- Cloud Infrastructure Configuration on Google Cloud Platform:
  - Configured cloud instances on Google Cloud Platform (GCP).
  - Set up firewall rules, identity management access, and network security protocols to ensure a secure cloud environment for multiples instances (vms) of lab projects.
- Self-Sovereign Identity Tool for Multinational Orange Suppliers:
  - Developed a tool using SSI/Didkit and python to assign unique identities to multinational suppliers.
  - Enabled authentication of Orange franchises by clients via a mobile app (React Native)
- AI-Driven Smart Contract Vulnerability Evaluation Tool:
  - Developed a tool to evaluate smart contract vulnerabilities generated by LLAMA3/Gemma2/Mistral... (OLLAMA).
  - Automated the generation and testing of smart contracts
  - Used Node.js and shell scripting for unit tests (Hardhat/Chai.js) and vulnerability evaluation (Slither), identifying top-performing AI models.
- NFT (ERC721) Marketplace for Physical Assets:
  - Developed an NFT marketplace application for physical assets using ReactJS, NodeJS, and ExpressJS.
  - Implemented a secured connection with ESP32 for data transmission to the blockchain from embedded systems.
- Education Platform in the Metaverse/Blockchain using Location NFTs (ERC 4907)
  - Supervision of two final-year interns.
  - Technologies/languages used: Unity, Solidity, TypeScript, ERC 4907
  - Participation in writing an article for Springer (awaiting response).

**Technologies:** ReactJS, NodeJS, Linux, Docker, expressjs, MongoDB, RabbitMQ, Websocket, TypeScript, sh, Scrum, Jira, Git, GitlabCI, Design Pattern (Singleton, Factory, Adapter), OOP, agility, GCP, Blockchain, LLM, OLLAMA, SLITHER, CHAIJS, OpenZeppelin, ERC721, ERC1155, ERC4907, PM2, Gitlab CI, Google cloud Platform GCP, Firewall, LoadBalancer, IAM

#### **TECH'UP CONSULTING**, Summer Internship + Part-Time Job

• Conduct a series of comparative and qualitative analyses on the migrated assurance data from multiple database structures.

Technologies: SpringBoot, ANGULAR, GIT, JPA, JDBC, PostgreSQL

#### **PETROSERV CATERING**, Summer Internship

 Web solution for managing Petro-serv Catering's invoices, employees, and other administrative tasks.

**Technologies:** SpringBoot, ANGULAR, GIT, JPA, JDBC, PostgreSQL, Agility, Trello

#### IOVISION.IO, End of year project

• Mobile application that provides users the simplicity when searching for goods and services across all domains.

**Technologies:** SpringBoot, ANGULAR, IONIC, Adobe UI, GIT, JPA, JDBC, PostgreSQL, Agility, Trello

#### **ACTEOL**, Summer Internship

• Web solution for the management of the company.

Technologies: .NET, ANGULAR, GIT, PostgreSQL, Agility, Trello

Paris, France - Fully Remote JUIN 2021 to DEC 2021 6 months

Sfax, Tunisia - Fully Remote JUIN 2021 to AOUT 2021 2 months

> Sfax, Tunisia JAN 2021 to JUIN 2021 5 months

Sfax, Tunisia JUIN 2020 to AOUT 2020 2 months

### Certifications \_\_\_\_\_

COURSERA: Google Cloud Fundamentals: Core Infrastructure	2024
View Certificate ☑ COURSERA:Google Cloud DevOps Fundamentals	2024
View Certificate ☑	
COURSERA: Containerize a full-stack NodeJS application in Docker  View Certificate ☑	2024
COURSERA: Introduction to Docker: Build Your Own Portfolio Site	2024
View Certificate ☑ COURSERA: Tracking Cryptocurrency Exchange Trades with Google Cloud Platform in	2024
Real-Time	2024
View Certificate ☑	

## Language Proficiency \_\_\_\_\_

- **English**: Fluent in speaking, reading, and writing. Proficient in professional communication and technical documentation.
- **French**: Native speaker with full proficiency in speaking, reading, and writing. Capable of professional communication and technical documentation.
- Arabic: Native language.
- German: Basic skills.