

SARDAR FAISAL MAHMOOD

Senior Blockchain Architect · Web3 Lead Engineer · DeFi & Tokenomics Expert

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PROFESSIONAL SUMMARY

Senior Blockchain Architect and Web3 Lead Engineer with 7+ years designing and delivering production-grade Web3 systems. Expert in smart contracts, DeFi, tokenomics, dynamic NFTs, STOs, and enterprise blockchain across Ethereum, Avalanche, Solana, Tezos, Bitcoin/Lightning/Liquid, and Hyperledger. Proven track record leading multi-disciplinary engineering teams across 15+ projects in automotive, music, fintech, media, and public sectors. Holder of a PhD in Biosciences (Biochemistry / Cellular & Molecular Biology) — bringing a uniquely rigorous scientific analytical approach to every architecture decision. Currently Blockchain Architect at Metadev3 and Guest Lecturer at ESGI Paris (Master 4 & 5).

KEY ACHIEVEMENTS

- ▶ Architected Europe's first Security Token Offering platform in the media industry (Logical Pictures, Tezos)
- ▶ Led full CodeNekt Web3 ecosystem on Avalanche: custom Subnet + ERC-20 token launch + dynamic NFT vehicle traceability
- ▶ Developed Liquid Network tokenization platform in collaboration with Blockstream (AMP)
- ▶ Delivered Solana-based financial inclusion solution for rural populations in Ivory Coast (Panelys/PUSH)
- ▶ Currently leading blockchain architecture for Mostro.xyz artist token launchpad on EVM (2026)
- ▶ Industry expert lecturer at ESGI Paris — Mastère Ingénierie de la Blockchain (RNCP Level 7)

TECHNICAL SKILLS

Blockchains	Ethereum · Avalanche (C-Chain & Subnets) · Polygon · Solana · Tezos · Bitcoin · Lightning Network · Liquid Network · Hyperledger Fabric / Besu / Indy · Algorand · Stellar
Smart Contracts	Solidity · Rust (Anchor) · SmartPy (Tezos) · Chaincode (Hyperledger)
Standards & EIPs	ERC-20 · ERC-721 · ERC-1155 · ERC-777 · ERC-1363 · EIP-2535 (Diamond) · EIP-4337 (Account Abstraction) · EIP-2771 (Meta Tx)
Web3 Frameworks	Hardhat · Foundry · Truffle · OpenZeppelin · OpenZeppelin Defender · Tenderly · Ethers.js · Web3.js · Web3J · Anchor · IPFS (Pinata, Filebase)
DeFi & Tokenization	Uniswap · Bancor · Balancer · Dodo · Kyberswap · Blockstream AMP (Liquid Network)
Node Infrastructure	Bitcoin Node · Lightning Network Node · Liquid Network Node · Tezos Baker (setup, configuration & operations)
DevOps & Cloud	AWS · Terraform · Docker · CI/CD · Linux · QuickNode · Infura · Oonodz · RabbitMQ
Backend	Java · Spring Boot · Node.js · Golang · TypeScript · Python · Microservices · RESTful APIs
Frontend	Angular · React.js · Vue.js · Quasar · Flutter
Databases	PostgreSQL · MySQL · Amazon QLDB · DynamoDB

PROFESSIONAL EXPERIENCE

Blockchain Architect — Metadev3

Paris, France · Employee | Full-time | Hybrid

Sep 2022 – Present

Lead blockchain architect at Metadev3, responsible for end-to-end client engagements: whitepaper analysis, tokenomics design, multi-chain architecture, smart contract development supervision, security review, and team mentoring.

MOSTRO.XYZ — Artist Token Launchpad

Jan 2026 – Present

Web3 music platform empowering independent artists to launch tokens on EVM-compatible blockchains.

- ▶ Conceived and architected the full blockchain layer for the artist token launchpad
- ▶ Designed smart contract architecture for artist token issuance and community fundraising
- ▶ Supervised and managed the smart contract development team
- ▶ Defined token mechanics, security standards, and deployment strategy

Stack: EVM · Solidity · ERC-20 · Tokenomics

CODENEKT — Token Launch on Avalanche

Jun 2024 – Present

ERC-20 token launch for the CodeNekt automotive Web3 ecosystem on Avalanche, including full tokenomics design.

- ▶ Critically analyzed the whitepaper, identified risks, and proposed improvement solutions
- ▶ Developed comprehensive tokenomics aligned with platform use cases and business objectives
- ▶ Defined technical specifications and supervised the development team

Stack: Avalanche · Solidity · ERC-20 · Tokenomics · QuickNode

CODENEKT — Custom Avalanche Subnet

Jan 2024 – Present

Custom Avalanche Subnet for a major automotive industry client — enhanced decentralization, security, and platform-specific token infrastructure.

- ▶ Performed deep technical analysis of Avalanche Subnet capabilities and trade-offs
- ▶ Proposed and evaluated subnet customization scenarios with executive-level presentations
- ▶ Developed full technical specifications for the subnet architecture
- ▶ Supervised the development team through implementation

Stack: Avalanche Subnet · Solidity · Oonodz

CODENEKT — Dynamic NFT Vehicle Lifecycle Traceability

Jun 2023 – Feb 2024

Blockchain-based traceability of a vehicle's full lifecycle using dynamic NFTs on Avalanche with serverless AWS architecture.

- ▶ Conceived serverless blockchain architecture ensuring security, confidentiality, and scalability
- ▶ Implemented Terraform IaC for streamlined infrastructure management on AWS
- ▶ Supervised and contributed to smart contract and API development
- ▶ Built Web3 integration module enabling seamless blockchain connectivity for Web2 applications

Stack: Avalanche · Solidity · Ethers.js · AWS · Terraform · TypeScript · Amazon QLDB · QuickNode

LIQUID NETWORK TOKENIZATION PLATFORM (Blockstream AMP)

2022 – 2023

Internal Metadev3 R&D project in collaboration with Blockstream — asset tokenization platform on the Liquid Network using Blockstream AMP.

- ▶ Developed and supervised the Liquid Network tokenization platform based on Blockstream AMP
- ▶ Set up, configured, and operated Bitcoin, Lightning Network, and Liquid Network nodes
- ▶ Designed asset issuance and management architecture for the Liquid sidechain
- ▶ Set up and managed Tezos Baker

Stack: Liquid Network · Bitcoin · Lightning Network · Blockstream AMP · Tezos

PANELYS / PUSH — Blockchain Financial Inclusion Platform

Dec 2022 – Dec 2023

Mobile financial service promoting financial inclusion for rural populations in Ivory Coast — Solana-based transaction traceability.

- ▶ On-site engagement in Abidjan to define integration architecture
- ▶ Designed and presented the blockchain integration architecture

- ▶ Developed Solana smart contracts for transaction traceability and account balance management
- ▶ Supervised and contributed to Web3 module connecting the mobile app to the blockchain

Stack: Solana · Rust · Anchor · Web3.js · AWS · Golang · Node.js · QuickNode · Amazon QLDB

BOLERO MUSIC — NFT Marketplace & Secondary Market

Sep 2022 – Dec 2022

Blockchain marketplace with automated artist royalty distribution — custom DEX-based secondary market on Polygon.

- ▶ Conducted deep analysis of 12+ DeFi exchange protocols, mapping advantages and trade-offs
- ▶ Modeled and architected a custom secondary market solution based on the most suitable DEX
- ▶ Supervised the development team through full implementation

Stack: Polygon · Solidity · DEX Protocols · ERC-721 · ERC-1155

TEACHING & ACADEMIC CONTRIBUTION

Guest Lecturer — ESGI Paris (École Supérieure de Génie Informatique)

2024 – 2025

Industry expert for the State-recognized Mastère in Blockchain Engineering (RNCP Level 7 / Bac+5).

- ▶ Master 5th Year (M2) — Avalanche Blockchain: advanced architecture, subnet design, smart contract development, tokenomics
- ▶ Master 4th Year (M1) — Solana Blockchain: Rust/Anchor development, program architecture, DeFi application design

Web2 / Web3 Engineer — Iorga Group

May 2018 – Aug 2022

Paris, France · Employee | Full-time

Full-stack engineer delivering Java/JEE solutions and pioneering Web3 integrations for enterprise and public-sector clients. Designed scalable backends, developed user interfaces, and integrated blockchain modules into Web2 applications.

FANLIVE RUGBY — NFT/SFT Sports Fan Platform

Jul 2021 – Aug 2022

First global digital platform connecting Rugby Unions/Clubs and fans through NFT/SFT token auctions on Tezos.

- ▶ Engineered and deployed scalable microservices architecture
- ▶ Built English Auction engine for primary and secondary NFT markets
- ▶ Developed investor onboarding workflow with full KYC management
- ▶ Implemented fiat/crypto payment workflows with smart contract integration

Stack: Tezos · SmartPy · Spring Boot · Angular · Java · TypeScript

LOGICAL PICTURES — Europe's First Media Industry STO

Jan 2021 – Dec 2021

Europe's first Security Token Offering platform in the media industry — for a leading European film production company.

- ▶ Engineered and deployed the STO platform microservices architecture
- ▶ Developed investor onboarding with full KYC management
- ▶ Built automated annual dividends distribution and reporting system
- ▶ Integrated smart contract interactions for on-chain data recording

Stack: Tezos · SmartPy · Spring Boot · Angular · Java · TypeScript · STO

CONNECTED VEHICLE PASSPORT — Decentralized Identity PoC

Jan 2021 – Mar 2021

PoC for certified vehicle lifecycle traceability with decentralized identity — French automotive and insurance consortium (PSA, Mobivia, Matmut, Pacifica, Inter Mutuelle).

- ▶ Developed dashboards for Car Owners, Dealerships, and Insurance Companies
- ▶ Designed and integrated APIs for efficient on-chain data storage and retrieval

Stack: Hyperledger Indy · Decentralized Identity (DID) · Angular · TypeScript · PostgreSQL

FINGERPRINT — Blockchain Data Traceability PoC

Sep 2020 – Jan 2021

Blockchain module for tamper-proof on-chain data fingerprint tracing — ensuring data integrity.

- ▶ Designed and developed APIs for on-chain fingerprint storage
- ▶ Implemented asynchronous message handling via RabbitMQ

Stack: Ethereum · Solidity · Infura · Spring Boot · Java · RabbitMQ

UNBANK — Multi-chain Crypto Payment Platform

Apr 2020 – Dec 2020

Mobile platform enabling everyday purchases with cryptocurrency — integrated buy/sell/swap across Bitcoin, Ethereum, and Stellar.

- ▶ Developed admin dashboard for accounts, balances, and hot/cold wallet management
- ▶ Integrated Bitcoin, Ethereum, and Stellar for transaction processing
- ▶ Integrated Kraken exchange API for crypto trading workflows

Stack: Ethereum · Bitcoin · Stellar · Solidity · Web3J · Infura · Spring Boot · PostgreSQL

KEOLIS — Blockchain Ticketing Management PoC

Aug 2020 – Oct 2020

Traceability of public transport ticket validation on Hyperledger Fabric for the Keolis network in the Côte d'Azur region.

- ▶ Developed user interface and admin dashboard for ticket validation actors
- ▶ Implemented graphical data representation for real-time validation tracking

Stack: Hyperledger Fabric · Chaincode · Angular · TypeScript

FRENCH MINISTRY OF ECONOMY & FINANCES

Jun 2019 – Jun 2020

Enterprise application for inter-ministerial meeting management across French government entities.

- ▶ Developed meeting creation, scheduling, and notification modules
- ▶ Designed and developed APIs for efficient data retrieval across ministerial entities

Stack: Angular · Spring Boot · Java · TypeScript · PostgreSQL

CEREMA — GES-Urba Urban Energy Impact Tool

Oct 2018 – May 2019

Tool evaluating the impact of urban planning decisions on energy consumption and greenhouse gas emissions for CEREMA.

- ▶ Developed user interfaces and backend APIs for data retrieval and visualization

Stack: Angular · Spring Boot · Java · TypeScript · PostgreSQL

VINCI / BEE4SENSE — Enterprise Data Centralization Platform

May 2018 – Oct 2018

Enterprise solution to centralize and standardize resources across all Vinci group entities using the Bee4Sense platform.

- ▶ Developed transformation and standardization solution for heterogeneous data sources

Stack: Java · Groovy · Bee4Sense

SCIENTIFIC BACKGROUND — BIOSCIENCES RESEARCH

A decade of doctoral and postdoctoral research in molecular biology and oncology at leading French institutions. This background built the analytical rigour, experimental design, and systematic thinking that underpin every architecture decision made today.

Postdoctoral Researcher — Cancer Biology

2013 – 2016

Institut Curie, Paris, France

- ▶ Research on breast cancer cell signaling mechanisms and their therapeutic potential
- ▶ Identified and validated key biological targets for potential cancer treatments

Postdoctoral Researcher — Neuroblastoma Research

2012 – 2013

INSERM / Université de Rouen, France

- ▶ Studied the role of a receptor-type oncogene in neuroblastoma as a potential therapeutic target

- ▶ Validated cancer-driving mechanisms and contributed to identifying new approaches for targeted therapies

PhD Researcher — Breast Cancer Biology

2007 – 2012

Institut Curie / Université Paris-XI, France

- ▶ Investigated oncogenes involved in breast, pancreatic, and lung cancer progression
- ▶ Performed high-throughput RNAi screening to evaluate gene function in cancer cell growth and survival

EDUCATION

- 2017 - 2018** Java/JEE Professional Training — GT'M Ingénierie
- 2007 - 2012** PhD in Biochemistry / Cellular & Molecular Biology — Université Paris-XI / Institut Curie
- 2006 - 2007** Master 2 in Biochemistry — Université Paris-Diderot / Institut Jacques Monod

LANGUAGES

French — Bilingual / Native proficiency | **English** — Bilingual / Professional proficiency

Availability: Open to new engagements (consulting, architecture, smart contract audit) | Paris-based | Hybrid / Remote