

ALAA ZORKANE

Sr. Solana Software Engineer

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Summary

Blockchain developer with 6+ years of experience, spanning across distributed systems, and full-stack development, specifically on the Solana ecosystem. Skilled in end-to-end smart contract development with Rust proficiency. I can rapidly learn and adapt to new technologies, delivering both high-quality code and architectures within complex systems.

As both a user and developer in the Solana ecosystem, with expertise across a wide variety of ecosystem tools and libraries, I have no problem learning new technologies. Focused on building robust blockchain infrastructure and working autonomously in fast-paced environments to deliver innovative solutions.

I thrive in dynamic settings that change daily, taking initiative to develop ideas and drive projects forward without constant direction.

Tech Stack

Solana:

Rust • Solana • Anchor • SVM syscalls • Pinocchio • Web3js v2 • Helius • Quicknode • Switchboard • Pyth Network • Lightprotocol • Circom • Arkworks • Metaplex • LiteSVM • Mollusk • Codama

Backend: GraphQL • gRPC • Nestjs • SSE • Vitest • Postgresql • Redis • Kafka • NATS • TimescaleDB • Protobuf

Frontend: React/Nextjs • Tailwind • Framer Motion • Web3js • Apollo • Urql • Rainbow • Vite

Devops: ECS • EKS • Kubernetes • Pulumi • Docker • Terraform • S3 • Cloudflare

Misc: ebpf • ASM x86 • RISC-V • IDA • Ghidra • LLDB/GDB • wasm

Experience



Zorkane Solutions

Remote

Freelance Contracting

11/2024 - Present

Custom-tailored blockchain solutions (mainly in the Solana ecosystem).

- Custom Meteora dynamic pools integration.
- ZK Circuit design.
- Raydium integration.
- Trading telegram bots.
- Smart contract optimizations.
- Smart contract end-to-end testing & auditing.



Hyperspace Inc.

San Francisco, CA

Lead Technical Architect

10/2020 - 09/2024

Led the technical architecture and R&D initiatives for a novel distributed AI protocol with a Solana settlement layer. Currently operating at **250.000+ actively connected nodes**. This is by far the **most complex** distributed systems I built and architected.

- Grew the Hyperspace backend and blockchain team from **4 to 8 engineers**, managing the full recruitment life cycles and establishing internal engineering processes.
- Drafted comprehensive protocol specifications and technical whitepaper.
- Integrated a complex points system settled on Solana (Anchor program) and Optimism (Solidity)



FinaMaze

Dubai, UAE

Senior Software Engineer

04/2020 - 12/2020

Developed full-stack solutions for an AI-driven investment platform. Worked directly with financial algorithms and real-time trading integrations.

- Integrated with custom order books.
- Built real-time investment portfolio tracking and management interfaces using React and TypeScript.
- Implemented robust data persistence layers using PostgreSQL and Redis.

Experience



Freelance

Software Engineer

Europe & Morocco

06/2016 - 04/2020

Independent Consultant delivering solutions spanning industrial, education sectors. Specialized in transforming legacy systems and building real-time data platforms using React, TypeScript, and Node.js.

- Led digital transformation project for OCP Group, architecting and implementing a comprehensive system to digitalize operational standards.
- Developed real-time monitoring dashboards.



Hobbyist Developer

Junior Engineer

Morocco

01/2012 - 01/2016

- Created custom automation scripts and bots using Node.js.
- Developed Minecraft server plugins and mods, creating custom game mechanics, player interaction systems, and server management tools. Implemented both client-side mods and server-side features to enhance multiplayer gameplay

Open Projects

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★ meteora-virtual-price	2025
Fully onchain virtual price calculator of Meteora dynamic pools. Supporting both stable and volatile pools.	
• Github: https://github.com/AlaaZorkane/meteora-dynamic-amm-info	
★ kasbah	2025
Privacy protocol built on Solana that enables fully anonymous transactions using low-level svm syscalls to verify onchain and a custom wasm implementation to generate proofs offchain in an efficient way.	
• Stack: Rust - Anchor - Arkworks - SVM syscalls - Codama - Snarkjs - Circom	
• Link: https://kasbah0.notion.site	
• Github: https://github.com/alaazorkane/kasbah	
★ merkle-poseidon	2025
A fully wasm-compatible sparse merkle tree implementation with a ZK-friendly hashing algorithm.	
• Github: https://github.com/alaazorkane/merkle-poseidon	
cp-amm	2024
A simple custom constant-product AMM implementation.	
• Stack: Rust - Anchor - Codama - Vitest	
• Github: https://github.com/AlaaZorkane/amm	
eskplus	2024
Advanced escrow protocol built on Solana that enables complex multi-token standards and multi-asset exchanges.	
• Stack: Rust - Anchor - Codama - Vitest - Token 2022	
• Github: https://github.com/AlaaZorkane/eskplus	
philosophers-rs	2022
Safe multi-threaded philosophers problem implemented in Rust.	
• Github: https://github.com/alaazorkane/philosophers_rs	
★ solana-protobuf	2021
Pre-IDL and pre-anchor solution for generating a frontend interface for your solana program.	
• Github: https://github.com/AlaaZorkane/solana-protobuf	
★ difys	2020
Advanced botting framework for Dofus MMORPG, featuring packet interception, protocol reverse engineering, and distributed bot orchestration. Built with TypeScript to provide developers with an intuitive plugins API.	
• Stack: Nodejs - Postgresql - Typescript - gRPC - Protocol Buffers - MITM - Redis - Nextjs	
• Link: https://difys.now.sh	
• Github: https://github.com/alaazorkane/difys	

Open Projects

A Brief History of Mankind

2018

Interactive educational platform chronicling human history from prehistoric times to the modern era

- **Stack:** React - Firebase - Emotion
- **Link:** <https://timeemsi.netlify.app/>

Education

Mohammed VI Polytechnic University

Technical Architect

06/2019 - 07/2021

Ecole Marocaine des Sciences de l'ingénieur

Engineering degree, Computer Science

02/2017 - 11/2019

Université Hassan II

Bachelor of Applied Science - BASc, Theoretical and Mathematical Physics

02/2017 - 11/2019

Certification

Turbin3's Builder Program (2025) — Turbin3

Microsoft Certified: Azure Fundamentals (2020) — Microsoft