

ABDELRAHMAN HOSSAM

Smart Contract Engineer

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Summary

Smart Contract Engineer backed by 4+ years of data-engineering, now pursuing a Solidity-centric protocol role. I developed Ethereum contracts using **Solidity, Hardhat, and Ethers.js**, tested by audit tooling such as **Slither and SuMo**. Also, I have developed Solana programs using **Rust**. Key projects include **Rocketmeme API**, a sub-4 milliseconds Solana trading gateway, and an **Orca CLMM delta-hedging bot** that auto-rebalances liquidity to minimize impermanent loss. I'm eager to bring this real-time data and security focus to shipping battle-tested De-Fi primitives at scale.

Skills

Languages: Solidity · Rust · JavaScript

Tools: Hardhat · Slither · SuMo · Node.js · Ethers.js · Web3.js · gRPC

Databases: Redis · MySQL · PostgreSQL · Apache NiFi

Experience

STC

Riyadh, Saudi Arabia

Data Engineer

03/2021 - Present

- Streamlined ETL pipelines, boosting daily throughput 25 %
- Cut query latency 50 % by refactoring SQL and deploying targeted index strategies
- Automated CI / CD for data services on Linux, enabling zero-downtime releases to All production nodes

Education

Metana

Web3 Solidity Bootcamp

02/2025 - 07/2025

The German University in Cairo

Bachelor's degree, Computer Software Engineering

01/2015 - 01/2020

Projects

Rocketmeme Trading API - Solana

rocketmeme.io

Developed a Solana meme coin trading API to enable developers to automate trades and build custom bot integrations

- Engineered a **Rust/Node** API that executes 20+ **Solana** trades per second with sub-4 milliseconds latency
- Reduced round-trip delay by piping orders through **Redis** queues and **gRPC** streaming calls
- Rolled out **AWS Global Accelerator** to keep worldwide request latency below 100 ms
- Shipped a lightweight PWA so non-technical users can trigger trades from any device

CLMM Bot with Delta Hedging - Solana

Developed a CLMM bot with delta-hedging system for automated market making on **Solana**

- Coded a CLMM bot using **Node.js** and **Web3.js** that auto-repositions liquidity $\pm 3\%$ every 40 minutes
- Integrated **Orca** and **Hyperliquid** protocols to implement **delta-hedging** impermanent-loss mitigation
- Bundled open + close instructions** into one transaction, cutting rebalance cost to 0.00001 SOL
- Added volatility-aware logic that widens ranges during spikes, boosting fee capture

NFT Minting & Forging System - Ethereum

github.com/abdelhossam/drakesmith

Developed a decentralized **NFT** minting and forging system on **Polygon using ERC1155**

- Wrote gas-efficient **ERC-1155** and controller contracts using Solidity for multi-asset **NFT** management
- Added **OpenZeppelin** batch-mint/burn with cooldown guards to block spam and protect scarcity
- Deployed on optimized gas costs, including batch minting and efficient cooldown tracking

Ethereum's analytics dashboard - Ethereum

https://github.com/abdelhossam/block-metrics

Developed a real-time Ethereum analytics dashboard for live blockchain data visualization using **Alchemy** and **Ethers.js**

- Built a React dashboard streaming USDT transfers, base fees, and gas usage per block
- Pulled data via Alchemy getLogs/getBlock, enabling every 10 seconds live chart updates