

# Aman Ullah

## Senior Smart Contract Engineer & Security Researcher

### SUMMARY

- 7 years of specialized experience in blockchain development, focusing on DeFi protocol design, security tokens, NFT marketplaces, and Web3 wallets.
- Proficient in Solidity (4 years), Go, Typescript, JavaScript, and Java, with hands-on expertise in Forge, Hardhat, Truffle, and Foundry Fuzz for smart contract development and security analysis.
- Led end-to-end projects including a Hyperledger private blockchain handling \$3M+ remittance inflows and a real estate tokenization system reducing property transfer time to under 1 day.
- Skilled in integrating blockchain with backend services and frontend.
- I have a strong foundation in blockchain security research and development methodologies.

### TECHNICAL SKILLS

|                                                     |                                                                           |
|-----------------------------------------------------|---------------------------------------------------------------------------|
| <b>Main Technical Skills</b>                        | Solidity, TypeScript, JavaScript                                          |
| <b>Programming Languages</b>                        | JavaScript, Solidity, TypeScript                                          |
| <b>JavaScript Libraries and Tools</b>               | Ethers.js, Web3.js                                                        |
| <b>PHP Frameworks</b>                               | Laravel Forge                                                             |
| <b>JavaScript Frameworks</b>                        | Node.js, React                                                            |
| <b>Amazon Web Services</b>                          | AWS EC2, AWS Lambda                                                       |
| <b>Blockchain and Decentralized Software</b>        | DeFi, ERC-1155, ERC-20, Ethers.js, Foundry, Hardhat, Hyperledger, Truffle |
| <b>Virtualization, Containers and Orchestration</b> | Docker, Kubernetes                                                        |
| <b>SDK / API and Integrations</b>                   | GraphQL                                                                   |
| <b>Other Technical Skills</b>                       | Blender 3D, Linea, Slither                                                |

## WORK EXPERIENCE

### Blockchain Consultant - Akru (Smart Contract Modules Integration and Security Audits)

**Duration:** March 2024 - Present

**Summary:**

- Collaborated with the CTO to enhance existing blockchain codebase by integrating new modules, focusing on gas efficiency, security, and transaction cost reduction
- Conducted internal audits and maintained fuzz testing suites to ensure smart contract reliability

**Responsibilities:**

- Collaborated directly with CTO to integrate new modules into existing codebase.
- Guided team in developing and shipping new features and modules.
- Designed development practices focused on gas efficiency, security, and reduced transaction costs.
- Conducted internal audits and maintained fuzz testing suite for smart contracts.

**Technologies:** Solidity, Forge, Anvil, Cast, Hardhat, Slither, Echidna, Medusa, Foundry Fuzz

### Senior Blockchain Developer - Metastaq Inc. (NFT-based Community Management and Web3 Wallet Development)

**Duration:** July 2022 - September 2023

**Summary:**

- Designed and developed smart contracts on Ethereum Mainnet and Layer 2 for NFT-based community management systems and royalty standards
- Led the development of a non-custodial Web3 wallet for Web2 users, integrating secure private key management and fiat on-ramp services

**Responsibilities:**

- Designed and developed NFT-based community management systems with perks and tier management.
- Delivered NFT projects with ERC-2981 royalty standard integration.
- Authored technical proposals for NFT community integration.
- Spearheaded build of non-custodial Web3 wallet modeled after Magic using AWS identities.
- Implemented Shamir's Secret Sharing for private key management.
- Added native Web3 support including connect-wallet and MetaMask flows.
- Integrated Wert as fiat on-ramp service.

**Technologies:** Solidity, Ethereum Mainnet, Layer 2, AWS, Shamir's Secret Sharing, Wert, Web3Js, MetaMask

### Blockchain & Backend Engineer - Akru (Fractional Real Estate Tokenization and Asset Management System)

**Duration:** March 2021 - October 2022

**Summary:**

- Led the design and development of a real estate ownership and transfer system using security tokens compliant with STO, ERC-20, and ERC-1400 standards



- Developed backend services and APIs, integrated digital signature solutions, and implemented dividend distribution for property profits

#### **Responsibilities:**

- Designed, developed, and maintained features across production products.
- Built end-to-end features from smart contracts to backend services.
- Designed and developed APIs for frontend consumption.
- Worked with STO, ERC-20, and ERC-1400 token standards for compliant security tokenization.
- Integrated DocuSign for digital signatures during tenant onboarding.
- Implemented dividend distribution system for property profits.
- Led project end to end, collaborating with CEO and UI/UX teams.
- Integrated local third-party providers for payment and billing.
- Developed prototype reducing property transfer process from months to 2 days.

**Technologies:** Solidity, STO, ERC-20, ERC-1400, DocuSign, Backend APIs

### **Junior Blockchain Developer - Ovex (Banking Blockchain Solutions and Hyperledger Private Blockchain)**

**Duration:** March 2019 - March 2021

#### **Summary:**

- Developed and supported blockchain applications tailored to banking systems, integrating blockchain with AI-driven risk analysis
- Developed chain code in Golang for Hyperledger and smart contracts in Solidity for Ethereum
- Managed blockchain infrastructure and mentored team members

#### **Responsibilities:**

- Proposed blockchain-based solutions for banking systems.
- Analyzed, designed, developed, and supported blockchain applications.
- Integrated blockchain systems with AI-driven risk analysis pipelines.
- Developed chain code in Golang (Hyperledger) and Solidity smart contracts.
- Connected blockchain infrastructure with web applications using Web3Js and fabric-network SDKs.
- Mentored and trained new team members.
- Managed task allocation and deadlines.
- Built and maintained custom forks of Bitcoin and Ethereum nodes.

**Technologies:** Golang, Hyperledger, Solidity, Ethereum, Web3Js, fabric-network SDK, Bitcoin, Ethereum nodes

### **Developer - PAIC Hackathon (Health Record System - Web3 Patient Health Record)**

**Duration:** January 2019

**Summary:** Developed a Web3 version of a Patient Health Record system during a hackathon, focusing on decentralized and secure health data management.

#### **Responsibilities:**

- Built a Web3 Patient Health Record system.



## EDUCATION

- **Bachelors of Computer Science**  
University of South Asia Lahore  
August 2014 – August 2016
- **Master Of Computer Science**  
University of Management and Technology  
August 2017 – August 2019

