MAYURSINH ZALA

Blockchain Security Researcher | Smart Contract Engineer

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LinkedIn | GitHub | Portfolio

PROFESSIONAL SUMMARY

Smart contract developer and security researcher with **production blockchain experience** and **approved critical bug bounties** from major DeFi protocols. Successfully delivered CertiK-audited Solidity contracts for international cryptocurrency project. **Discovered and reported critical vulnerabilities** in ThorChain's Rujira protocol (approved by ThorSec team). Specialized in secure smart contract development, DeFi protocols, and security auditing. Remote-first developer with proven ability to work independently across global teams.

Security Research: Critical vulnerability findings in production DeFi protocols | Working with professional security teams
Development: Production smart contracts handling real value | Gas optimization | Comprehensive testing

TECHNICAL EXPERTISE

Blockchain & Security: Solidity, Smart Contract Auditing, Ethereum, Web3.js, Ethers.js, ERC-20/721/1155, DeFi, Foundry, Hardhat, OpenZeppelin, Slither, Mythril
Backend: Java, Spring Boot, Node.js, Express.js, REST APIs, Microservices, JWT, MySQL, PostgreSQL, MongoDB
Frontend & Web3: React.js, Next.js, TypeScript, JavaScript, Tailwind CSS, RainbowKit, WalletConnect
Tools: Git/GitHub, Docker, Postman, VS Code, Linux, CI/CD, Etherscan, Tenderly | **Testing:** Foundry Forge, Fuzz Testing, Code Coverage

PROFESSIONAL EXPERIENCE

Blockchain Security Researcher
Dec 2025 – Present
Independent Security Research | Bug Bounty Programs
- Discovered and reported **critical security vulnerabilities** in ThorChain's Rujira protocol (approved by ThorSec team)
- Identified first depositor inflation attack enabling complete fund theft (R-08: NAMI Index)
- Found single-sided deposit vulnerability in BOW XYK AMM contract (R-09: under review)
- Developed comprehensive proof-of-concept exploits | Collaborated with security teams on responsible disclosure
  Tech: Rust, CosmWasm, Solidity, DeFi Attack Vectors, PoC Development

Smart Contract Developer (Contract)
Oct 2025 – Present
GrowForce FZCO / iEscrow.io | Dubai, UAE (Remote)
- Developed **production-ready smart contracts** for $ESCROW ecosystem on Ethereum mainnet
- Architected ERC-20 token with vesting, multi-phase presale with dynamic pricing, staking with variable APY
- Collaborated with **CertiK auditors** — 15% gas optimization — 95%+ code coverage with Foundry fuzz testing
- Worked remotely with **international team across 5+ countries** using async communication
  Impact: Contracts prepared for mainnet launch | Zero critical vulnerabilities post-audit

Full-Stack Blockchain Developer
Jan 2025 – Present
Self-Employed / Portfolio Projects
- Built **cross-chain token bridge** with lock-and-mint mechanism, multi-validator consensus, fraud proofs
- Developed **DeFi lending protocol** with supply/borrow mechanics, liquidation protection, dynamic APY
- Created production-grade test suites with 77+ tests | Deployed to Sepolia, Holesky with comprehensive docs
  Tech: Solidity, Foundry, Next.js, TypeScript, RainbowKit, Node.js

Backend Developer Intern
Jan 2025 – Apr 2025
Zidio Development | Remote
- Built **scalable REST APIs** using Java, Spring Boot, MySQL | Developed React.js frontend
- Integrated **Cashfree payment gateway** with webhook processing | JWT auth with role-based access

FEATURED PROJECTS

ChainBridge — Cross-Chain Token Bridge
[GitHub] [Demo]
Built: Secure cross-chain ERC-20 transfers with lock-and-mint, multi-validator consensus, emergency controls
- 77 tests with Foundry (92% coverage) | Next.js + RainbowKit frontend | Node.js relayer | Deployed Sepolia & Holesky

NexusLend — DeFi Lending Protocol
[GitHub] [Demo]
Built: Aave-inspired lending with supply/borrow, health factor monitoring, liquidation protection, receipt tokens
- Dynamic APY, price oracle integration | React.js frontend with real-time position monitoring

PUBLICATIONS & SECURITY RESEARCH

- **Critical ThorChain Vulnerability** — Approved by ThorSec
- "Complete 2025 Crypto Hacks & Exploits" (1,200+ reads)
- "AI Smart Contract Audit Checklist 2025" (500+ reads)
- "Cheat Sheet for Quick Find Scams in Web3"

EDUCATION

B.E. Computer Engineering — Ahmedabad Institute of Technology, Gujarat
CGPA: 7.5/10 | Aug 2021 – Apr 2025
Relevant: Data Structures & Algorithms, Database Management, Web Technologies, Software Engineering

CERTIFICATIONS & ACHIEVEMENTS

- ✅ **Bug Bounty Researcher** — Critical vulnerability findings approved by ThorSec (ThorChain security team)
- ✅ HackerRank Java Certification | Deloitte Technology Job Simulation | 150+ LeetCode Problems | 41+ GitHub Repos

ADDITIONAL INFORMATION

Availability: Immediate joining | Flexible with global time zones | 40+ hrs/week
Languages: English (Professional), Hindi (Native), Gujarati (Native)

Work Style: Remote-first, self-motivated, independent worker
Interests: Blockchain security, DeFi protocols, Smart contract optimization