Ramprasad Edigi

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EXPERIENCE

- **Centre for Health Innovations (CHI), MRIIRS | Intern** **Jun 2025 - Aug 2025.**
  Built and deployed a Python/Flask backend with YOLOv8 + image-classification models for non-invasive anemia screening; separated inference and API services so the research pipeline could run independently and scale.

PROJECTS

• **CCIP Rebase Token:** Built a cross-chain rebase token with Chainlink CCIP, elastic supply mechanics, cross-chain messaging, Foundry tests, and Sepolia deployment workflows.

• **DeFi Stable Coin:** Built an over-collateralized stablecoin system with WETH collateral, mint/burn flows, liquidation mechanics, Foundry unit/fuzz testing, and Slither analysis.

• **Anchor-Sentinel:** Built a Rust static analyzer for Solana/Anchor programs with 20+ security detectors, severity filtering, version-diff scanning, CI integration, and executable exploit PoC generation.

• **Account Abstraction:** Built smart-wallet flows using an EVM account-abstraction model with an alt-mempool implementation, plus native zkSync account abstraction via IAccount; tested deployments on Arbitrum and zkSync.

• **Session Policy Wallet:** Built an on-chain policy layer for restricted session keys with spend limits and contract allowlists; deployed and tested the fail-closed policy validator on Monad Testnet.

• **Merkle Airdrop**: with Ethereum/zkSync support and proof generation; NFT Marketplace with ERC-721/1155 assets and Chainlink VRF-backed raffle mechanics.

• **DAO:** Built a governance DAO using OpenZeppelin Governor and ERC-20 voting tokens, with proposal creation, token delegation, quorum, timelocked execution, and Sepolia deployment. Developed and tested the contracts with Foundry.

SECURITY & OPEN SOURCE

- **Protocol Audits**: Completed 7 public audit reports with 48 findings (2 Critical, 28 High, 11 Medium, 7 Low). Key finding: Critical fake-oracle vulnerability in a Solana lending protocol that allowed total protocol insolvency via untrusted price feeds.

- **DeFiLlama contribution:** Merged PR #20384 replacing hardcoded Felix vault allowlists with dynamic on-chain MetaMorpho discovery + governor filtering; validated against >$255M combined TVL.

EDUCATION

- **Manav Rachna International Institute of Research and Studies (MRIIRS)** **June 2022 - June 2026.**
  B.Tech, Computer Science

CERTIFICATIONS & WRITING

- **RektOff × Solana Foundation Rust Security Bootcamp.** Completed coursework in Rust internals, memory safety, Solana architecture, SBPF bytecode, Anchor security, Token-2022, PDA/CPI risks, and audit PoC methodology.

- **Writing.** Technical writing on Chainlink CRE, CCIP architecture and security, Chainlink staking, oracle design, and smart contract security.

SKILLS

Languages: Solidity, Rust, Python

Web3: EVM, Solana, Foundry, Hardhat, Anchor, Chainlink CCIP, Chainlink CRE, OpenZeppelin

Security: Smart contract auditing, AI Audit, Slither, fuzzing, invariant testing, static analysis, PoC development, PDA/CPI security, Token-2022

Engineering: Next.js, Node.js, Flask, Docker, Git, RPC/WebSocket infrastructure