

Manupati Ramana Kumar

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Portfolio | LinkedIn | GitHub

Professional Summary

Blockchain Developer specializing in secure smart contract engineering and Web3 system architecture. Experienced in building tamper-resistant verification systems, decentralized data solutions, and gas-efficient on-chain logic using **Solidity**, **Hardhat**, and **Next.js**. Strong understanding of EVM internals, cryptographic hashing, and secure wallet interaction. Delivered award-winning decentralized applications with real-world usability and security considerations.

Technical Skills

- Smart Contracts:** Solidity, Pyteal, OpenZeppelin (ERC-20, ERC-721)
- Web3 Stack:** Hardhat, Wagmi, Viem, Ethers.js, IPFS
- Blockchain Concepts:** EVM Architecture, Gas Optimization, Cryptographic Hashing, Consensus Models
- Frontend for dApps:** Next.js, React.js, TypeScript, Tailwind CSS
- Backend & DevOps:** Node.js, Nest.js, Docker, GitHub Actions, Vercel, Git, AWS S3, AWS EC2

Projects

VeriStamp dApp – On-Chain Digital Notary

Ethereum Sepolia

- Delivered a decentralized proof-of-existence system registering unique document hashes on-chain, eliminating duplicate submissions and preventing tampering.
- Reduced gas consumption per transaction by optimizing storage layout and minimizing state changes within Solidity contracts.
- Secured wallet-based interactions using Wagmi and Viem, enabling users to sign and verify transactions directly from the browser.
- Validated contract logic using Hardhat test suites prior to deployment, ensuring deterministic execution across scenarios.

Arogya – Decentralized Medical Records Platform

Winner, DSU Hack-O-Verse 2024

- Created a decentralized health record system enabling patients to retain sovereign ownership of medical data with default-private storage.
- Designed time-bound access permissions allowing healthcare providers to retrieve limited records during consultations.
- Implemented emergency-access logic exposing only critical health attributes such as blood group and allergies.
- Leveraged IPFS-based storage to ensure immutability and resistance to centralized data breaches, strengthening patient data security.

Auction dApp – Algorand Smart Contract

AlgoBharat Hackathon Finalist

- Constructed auction logic in Pyteal ensuring atomic bid execution and secure fund transfers.
- Prevented invalid bids and premature withdrawals through structured on-chain state transitions across auction phases.

Experience

Full Stack Developer Intern – YEBSYS, Coimbatore

Aug 2024 – Dec 2024

- Delivered secure UPI and card-based transaction processing within a live platform, ensuring verified backend reconciliation through webhook validation.
- Reduced API latency by 30% through database query refinement and Redis-backed caching strategies.
- Automated containerized deployments using Docker and GitHub Actions, lowering manual release errors by over 90%.

Education & Achievements

Dhanalakshmi Srinivasan University – Tiruchirappalli, TN

Nov 2021 – June 2025

B.Tech in Artificial Intelligence & Data Science | CGPA: 7.69/10

- Research Publication:** Quantum-Inspired Deep Learning for Financial Data, IJARIT (Vol.11, Issue 3).
- Hack-O-Verse 2024:** Ranked 1st among 70+ teams; awarded \$800 seed funding.
- AlgoBharat Hackathon:** Secured 2nd place; invited to Algorand Greenhouse Hack, Singapore.