Josekutty (JC) Cheriyan

Technology • Strategy • Leadership

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PROFESSIONAL SUMMARY

Senior Blockchain Architect and Systems Engineer operating at the bleeding edge of decentralized technology. Proven track record of engineering censorship-resistant operating systems (Prism OS) and optimizing high-frequency blockchain nodes (Citadel). Specialized in solving complex problems in Web3, P2P networking, and high-concurrency systems. I don't just write code; I architect resilience.

TECHNICAL PROFICIENCIES

- **Blockchain & Web3:** Rust, Solidity, Solana (Anchor), Libp2p, Gossipsub, UTXO Models, Smart Contracts, Cryptography
- **Full Stack Engineering:** Python (Django/Flask), Node.js, Next.js, React, TypeScript, WebSocket, HTML5/CSS3
- **Systems & Cloud:** Linux, bash, Git, Docker, CI/CD, AWS, SQLite, PostgreSQL, Networking Security
- **Cybersecurity:** Threat Mitigation, Vulnerability Assessment, SIEM Tools, Secure Coding Practices

ENGINEERING EXPERIENCE

Lead Software Architect | Prism OS (Open Source) *2024 – Present* Architected a decentralized, offline-first operating system focused on censorship resistance and "Web of Trust" identity.

- **Concurrency at Scale:** Overcame Python's GIL limitations by engineering a custom AsyncIO event loop to handle thousands of concurrent P2P connections without blocking.
- **Trust Topology:** Designed a graph-based "Web of Trust" algorithm to calculate reputation scores locally, preventing sybil attacks in an anonymous network.
- **Traffic Visualization:** Built a real-time network traffic visualizer using Canvas API to debug packet flow and latency bottlenecks.

Blockchain Engineer | Citadel Core *2024 – Present* Developed a high-performance blockchain node in Rust from scratch, focusing on throughput and network resilience.

- **P2P Propagation:** Implemented Gossipsub via Libp2p to optimize block broadcasting, reducing propagation latency by 40% across the mesh.
- **Storage Optimization:** Designed a RocksDB-based storage layer with a custom UTXO schema, enabling heavily concurrent read/write access for transaction validation.
- **Consensus Safety:** Wrote rigorous unit and integration tests to verify consensus rules, preventing potential forks during high-load mining simulations.

Full Stack Web3 Developer | Golden Banana (Solana Project) *2024 – Present* Built a comprehensive GameFi dApp on Solana using the Anchor framework and Next.js.

- **Smart Contract Logic:** Engineered the "Feeding Protocol" program in Rust/Anchor, managing token state and secure transfers on-chain.
- **State Synchronization:** Solved game state desync issues by implementing optimistic UI updates and efficient RPC subscription management (WebSocket).
- **Wallet Integration:** Seamlessly integrated Solana adapter wallets (Phantom, Solflare) ensuring robust error handling for transaction signatures.

Senior Frontend Engineer | FleetOps Management System *2024 – Present* Led the modernization of a legacy fleet management platform, transitioning to a React-based architecture.

- **Code Quality Overhaul:** Enforced strict linting (ESLint) and typing standards (TypeScript) to eliminate hydration mismatches and unused variable leaks.
- **Real-Time Tracking:** Implemented map-based asset tracking using WebSocket feeds, optimizing re-renders for fleets with 500+ active vehicles.

Systems Engineer | Cloud Lite Coin *2024 – Present* Hardened network security and implemented AI-driven analysis tools for a distributed ledger project.

- **Heuristic Analysis:** Developed a static analysis tool (`will_it_halt`) to detect infinite loops in smart contract code before execution.
- **Network Security:** Audited and patched P2P listeners against DDOS vectors, implementing rate-limiting and connection pooling.

PREVIOUS OPERATIONAL LEADERSHIP

Python Developer | Tettares (2012 – 2023) Built Full-Stack Django/Flask apps and CI/CD pipelines.

Store Manager | 7-Eleven (2012 – 2023) Managed full P&L and operations. Focused on leadership and strategy.

Logistics & Transportation (2012 – 2023) Managed precision scheduling and safety compliance excellence.

EDUCATION

Bachelor of Science, Computer Science Manipal University

Associate Degree, Business & Hospitality Nanyang Institute of Management

LICENSES & CERTIFICATIONS

- **Google Cybersecurity** (Verify Credential)
- **Python for Everybody** (Verify Credential)
- **CDL:** Class B (P, S Endorsements)
- **Aviation (FAA):** Student Pilot License
- **Retail:** Food Handler (Manager), Alcohol & Tobacco Seller