Karri Sunil Reddy

Bargarh, Odisha 768040

+91 6370807112 | sunday7637@gmail.com | Portfolio | GitHub

EDUCATION

Gangadhar Meher University   Sambalpur, Odisha
Master of Computer Applications (MCA)   *Exp. May 2026*
Relevant Coursework: Data Structures (DSA), OOPs, DBMS, Operating Systems, Computer Networks

Vikash School of Business & Management   Bargarh, Odisha
Bachelor of Computer Applications (BCA)   *May 2024*

TECHNICAL SKILLS

Programming Languages: Rust, C++, TypeScript, JavaScript, Solidity
Blockchain: Solana (Anchor), Web3.js, SPL Token Standard, Hardhat
Web Technologies: Next.js, React.js, Node.js, Express, Tailwind CSS
Developer Tools: Git, Docker, Linux (WSL)
Spoken Languages: English, Hindi, Telugu, Odia

PROJECTS

Higher (Solana Betting Game) | *Rust, Anchor, Next.js*
- Architected a decentralized "King of the Hill" game on Solana Devnet where the final bidder claims the pot.
- Developed custom **Anchor smart contracts** to ensure trustless liquidity distribution.
- Implemented **PDAs (Program Derived Addresses)** for secure on-chain state management.

Sun Launcher | *Solana Web3.js, React, Metaplex*
- Built a no-code launchpad enabling users to mint and deploy **SPL Tokens** in under 60 seconds.
- Integrated Metaplex standards for seamless metadata management (images, tickers) on-chain.
- Designed a responsive UI with Tailwind CSS to simplify blockchain interactions for non-technical users.

Advance Vote | *Rust, Anchor, React*
- Created a token-gated governance dApp where voting rights are verifiable via asset ownership.
- Utilized **CPI (Cross-Program Invocations)** to execute secure instruction calls between programs.

Sol Swap (P2P Exchange Protocol) | *Rust, Anchor, Next.js, TypeScript*
- Architected a trustless, atomic swap protocol allowing users to trade any SPL token pair without a liquidity pool.
- Developed custom **Anchor programs** utilizing **PDAs (Program Derived Addresses)** to create secure, non-custodial escrow vaults for every trade.
- Engineered a smart client-side service that automatically handles **WSOL wrapping/unwrapping** and ATA creation within a single transaction.
- Implemented **Cross-Program Invocations (CPI)** to safely transfer assets and close vaults upon trade completion or refund.

Sunllet (HD Wallet Generator) | *TypeScript, Next.js*
- Engineered a Hierarchical Deterministic (HD) wallet generator implementing **BIP-44 derivation paths** for Solana (m/44'/501').
- Built a secure **Seed Import** feature allowing users to recover and generate unlimited child accounts from a single mnemonic phrase.
- Utilized **Ed25519** cryptography to deterministically derive private keys, ensuring full compatibility with major wallets like Phantom.
- Implemented client-side entropy generation to create cryptographically secure 12/24-word seed phrases without server interaction.

EXPERIENCE

Freelance Developer   Remote
Full Stack & Blockchain   *May 2024 – Present*
- Delivered custom web applications for clients using the React and Node.js ecosystem.
- Built and deployed prototype smart contracts for startup concepts in the Web3 space.