

ADARSH ROUNIYAR

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[linkedin.com/in/adarsh-rouniyar](https://www.linkedin.com/in/adarsh-rouniyar) — [AI & GitHub Portfolio](#)

SUMMARY

AI Systems Engineer and Chief Technology Officer building **production AI, Web3, and security infrastructure**. Led delivery of a **multi-chain DeFi staking platform** across **BNB Chain, X Layer, and Base** securing **1M+ USDT/USDC TVL**, including a secure referral rewards system with signed wallet verification, snapshot-based accounting, and admin payout workflows.

Experienced in **LLM systems, blockchain infrastructure, smart contract security, and distributed backend platforms** using **Python, TypeScript, React, Node.js, and cloud-native environments**.

SELECTED HIGHLIGHTS

- Shipped a **production multi-chain DeFi platform** securing **1M+ USDT/USDC TVL**.
- Architected and launched a **secure referral platform** with **EIP-191** wallet signature verification, immutable wallet-code binding, and anti-duplicate claim controls.
- Built **snapshot-based reward accounting and payout reconciliation** for reliable monthly referral distribution with auditable history.
- Resolved **16 smart contract audit findings** identified by CredShields, including **critical and high-severity issues**, and passed independent retest validation.
- Implemented **transaction reliability logic** (receipt normalization, event-priority parsing, RPC/indexer fallback) to reduce false claim/unstake failures in production UX.
- Building **Almond teAI**, an AI-powered code security scanner and trust platform with static analysis, secret detection, dependency checks, PDF reporting, and planned **smart contract audit workflows across EVM chains**.
- Built a **production LLM-powered crypto AI assistant** integrating RAG pipelines with real-time market data for automated insights.

TECHNICAL SKILLS

- **AI & ML:** LLM Integration, RAG, NLP Pipelines, Deep Learning (CNNs), Federated Learning, Model Aggregation, Computer Vision
- **Programming:** Python, Rust, TypeScript, JavaScript, TensorFlow, PyTorch, Keras
- **Blockchain & Web3:** EVM Smart Contracts, Multi-Chain dApps (BSC / X Layer / Base), Wagmi, Ethers.js, Wallet Integration, EIP-191 Signature Verification, On-chain Event Handling
- **Security & Backend:** Static Code Analysis, Secret Detection, Dependency Analysis, Authentication & Session Security, Node.js / Serverless API, Firestore (Admin SDK), REST APIs, Cron-based Automation
- **Infrastructure & Tools:** Docker, Kubernetes (K8S), Linux, GCP, Git, VS Code, JupyterHub, Google Colab, Prisma, SQLite, Next.js

PROFESSIONAL EXPERIENCE

Chief Technology Officer & Applied AI Engineer

Apr 2024 – Present

Whale Strategy Co., Ltd., Kaohsiung, Taiwan

- **Multi-Chain DeFi Product Delivery (WStaking):** Led end-to-end delivery of a production staking dashboard using **React + TypeScript**, integrating **Wagmi/Ethers** to route transactions across **BNB Chain, X Layer, and Base**.

- **Referral System Architecture & Security:** Designed and implemented end-to-end referral APIs for code generation/customization, wallet-code binding, nonce-based claim requests, and admin claim processing; enforced ownership verification through **EIP-191 signatures**, expiring challenge tokens, and server-side validation to prevent spoofing and replay abuse.
- **Referral Reward Accounting & Operations:** Built monthly snapshot-based reward computation (**0.5%**) with claimable-vs-paid reconciliation, duplicate-claim blocking, scheduled cron snapshot jobs, and auditable payout history to support reliable reward settlement.
- **On-Chain Transaction Reliability:** Implemented robust receipt and event parsing for **Staked**, **RewardsClaimed**, **StakeRenewed**, **Unstaked**, and **PartialUnstaked**, including receipt status normalization and fallback handling for RPC/indexer inconsistencies; reduced false claim and unstake error states in production UX.
- **Smart Contract Integration & Deployment:** Integrated and operated verified EVM contracts for staking, rewards claim, auto-renew, and unstake flows across three chains (**X Layer**, **Base**, **BSC**), securing **1M+ USDT/USDC TVL** on wstaking.net.
- **Smart Contract Audit Remediation:** Worked directly against the external CredShields audit and resolved **critical, high, medium, low, and informational findings**; supported remediation verification through full retest. Audit Report: [CredShields Final Audit Report](#)
- **Blockchain Monitoring & Alerting Infrastructure:** Designed and deployed Telegram-based monitoring services on Linux servers to track real-time on-chain activity across BNB Chain, X Layer, and Base, including staking events, wallet balance/allowance anomalies, unauthorized admin access attempts, and user connection analytics.
- **Smart Contract Security:** Coordinated with a **smart contract audit firm** to review and harden contracts; supported remediation and validation prior to production releases.
- **LLM Intelligence Systems:** Developed an LLM-powered crypto assistant leveraging **RAG** and live market data APIs for contextual Q&A, analysis, and sentiment workflows.
- **Quantitative Trading:** Built and containerized algorithmic trading bots using **Python**, **OKX APIs**, and **TradingView (Pine Script)** for automated live execution.
- **Web Operations:** Independently developed, secured, and hosted the company website: whalestrategy.net.
- **AI-Assisted Engineering Workflow:** Used Codex/ChatGPT to accelerate debugging and refactoring, with manual validation and preprod/production verification before release.

AI Research Assistant & Project Assistant

National Chung Cheng University (CCU), Taiwan

Nov 2021 – May 2024

- Conducted applied research in **federated learning and trustworthy AI** for sustainable smart-city systems, coordinating with international academic and government partners.
- Implemented **CNN-based prediction models** and distributed ML pipelines using TensorFlow and PyTorch; translated research outcomes into practical system designs.
- Authored and published research at **IEEE ISC2**, **ACM GoodIT**, and **Future Internet**.
- Contributed to the [NSTC Trustworthy AI Smart City Project](#).

KEY PROJECTS

- **Almond teAI — AI Code Security Scanner & Trust Platform (Ongoing):** Building a full-stack security scanning platform using **Next.js**, **TypeScript**, **Prisma**, and **SQLite** to analyze GitHub repositories, uploaded codebases, and live websites. Implemented static code analysis, secret detection, dependency checks, website misconfiguration scanning, security scoring, regression tracking, PDF reporting, and public trust verification pages and badges. Current work extends the platform to support **smart contract audit workflows across EVM chains**, including multi-chain security analysis and trust reporting for Web3 projects.

- **WStaking Multi-Chain DeFi & Referral Platform:** Built chain-aware staking flows and secure referral infrastructure (first-visit referral capture, signed bind/claim flow, snapshot-based reward accounting, and admin payout processing) across BNB Chain, X Layer, and Base. Live: wstaking.net
- **LLM-Powered Crypto AI Assistant:** LLM + RAG pipelines with real-time crypto market data for automated analysis and decision support.
- **Automated Trading Infrastructure:** Containerized Python-based trading systems utilizing ML-based signal filtering and OKX execution. [GitHub Repo](#)
- **Eff-AQI Federated Learning System:** CNN-based air pollution estimation model published at ACM GoodIT. Dataset: [GitHub](#) | [Kaggle DOI](#)

EDUCATION

M.Sc. Computer Science and Information Engineering 2021 – 2023
National Chung Cheng University, Taiwan GPA: 4.11 / 4.3

B.Tech. Computer Science and Engineering 2017 – 2021
Vel Tech University, India CGPA: 8.3 / 10

SELECTED PUBLICATIONS

- **Federated Learning Design and Functional Models: Survey.** *Artificial Intelligence Review*, 2024. [DOI](#)
- **Federated Adversarial Training Strategies for Sustainable Smart Cities.** *Future Internet*, 2023. [DOI](#)
- **Eff-AQI: Efficient CNN-Based Air Pollution Estimation.** *ACM GoodIT*, 2023. [DOI](#)
- **Federated Trustworthy AI Architecture for Smart Cities.** *IEEE ISC2*, 2022. [DOI](#)

ADDITIONAL

- **Languages:** English, Hindi, Nepali; Mandarin (basic)
- **Open-source work and technical portfolio:** [Strategies Repo](#), [WStaking GitHub](#), [Personal Portfolio](#)