ADARSH ROUNIYAR

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linkedin.com/in/adarsh-rouniyar — AI & GitHub Portfolio

OBJECTIVE

Chief Technology Officer and Applied AI Engineer specializing in **LLM systems, production AI pipelines, and blockchain-integrated platforms**. Proven experience designing, deploying, and scaling **real-world AI products** using **Python, Docker/Kubernetes, and cloud-native infrastructure**. Seeking to collaborate with high-impact teams building intelligent, data-driven systems in Taiwan's AI and high-tech ecosystem.

EXPERIENCE

Chief Technology Officer & Applied AI Engineer   Apr 2024 – Present
Whale Strategy Co., Ltd., Kaohsiung, Taiwan

- **Architected and deployed a production-grade LLM-powered Crypto AI Assistant**, integrating NLP pipelines, retrieval-augmented generation (RAG), and real-time market data to deliver contextual insights, sentiment analysis, and intelligent user interaction.
- Designed and deployed verified **smart contracts** on **X Layer, BASE, and BSC**, powering wstaking.net with **823K+ USDT & USDC staked** (Smart Contracts: X Layer, BASE, BSC).
- **Independently developed and deployed the company's official website** using WordPress, handling full-stack setup, hosting, security hardening, SEO, and content architecture: whalestrategy.net.
- Built and deployed **algorithmic trading bots** using **Python, OKX API, and TradingView (Pine Script)**, applying automation, quantitative logic, and ML-based signal filtering for live execution.
- Open-source work and technical portfolio: Strategies Repo, WStaking GitHub, Personal Portfolio.

AI Research Assistant & Project Assistant   Nov 2021 – May 2024
National Chung Cheng University (CCU), Minxiong & Chiayi, Taiwan

- Conducted applied research in **federated learning, trustworthy AI, and sustainable smart-city systems**, implementing CNNs, adversarial training, and distributed learning pipelines using TensorFlow and PyTorch.
- Published and presented peer-reviewed research at **IEEE ISC2, ACM GoodIT, and Future Internet**.
- Translated academic research into **practical system designs**, influencing real-world AI architecture decisions.
- Contributed to the NSTC–CCU Trustworthy AI Smart City Project, coordinating with international academic and government partners.

PROJECTS

LLM-Powered Crypto AI Assistant. End-to-end AI system combining LLMs, RAG, and real-time crypto data for analysis, insights, and decision support.

Smart-Contract Staking Platform. Verified contracts on X Layer & BSC integrated into wstaking.net with significant real-user capital locked.

Automated Trading Infrastructure. Python-based trading bots integrated with OKX APIs and TradingView; containerized using Docker for continuous execution. GitHub

Eff-AQI (Federated Learning). CNN-based AQI estimation system published at ACM GoodIT; Dataset: GitHub, Kaggle DOI.

SKILLS

- **LLM & AI Systems:** LLM Integration, NLP, RAG, Deep Learning (CNNs), Federated Learning, Model Aggregation
- **Programming:** Python, Rust, TensorFlow, PyTorch, Keras
- **Infrastructure:** Docker, Kubernetes (K8S), Linux, Cloud Platforms (GCP, Colab)
- **Blockchain & Web:** Smart Contracts (EVM), Web Applications, TradingView/Pine Script, REST API Integration
- **Tools:** Git, VS Code, JupyterHub, Google Colab
- **Leadership:** Technical Leadership, Mentoring, System Design, Cross-Team Communication

EDUCATION

M.Sc. Computer Science and Information Engineering, National Chung Cheng University, Taiwan   Sep 2021 – Aug 2023
GPA: 4.11 / 4.3
Thesis: Performance-Based Model Aggregation in Federated Learning for Image-Based AQI Classification.

B.Tech. Computer Science and Engineering, Vel Tech University, India   2017 – 2021
CGPA: 8.3 / 10
Thesis: Web Application for Online OPD Appointment and Hospital Information System

PUBLICATIONS

Peer-Reviewed Publications

- J. Ayelayen, S. Utomo, **A. Rouniyar**, H.-C. Hsu, P.-A. Hsiung. *Federated Learning Design and Functional Models: Survey.* Artificial Intelligence Review 58:21. **Published: 16 Nov 2024**. DOI
- S. Utomo, **A. Rouniyar**, H.-C. Hsu, P.-A. Hsiung. *Federated Adversarial Training Strategies for Achieving Privacy and Security in Sustainable Smart City Applications.* Future Internet 15(11):371. **Published: 20 Nov 2023**. DOI
- S. Utomo, **A. Rouniyar**, G.-H. Jiang, C.-H. Chang, K.-C. Tang, H.-C. Hsu, P.-A. Hsiung. *Eff-AQI: An Efficient CNN-Based Model for Air Pollution Estimation: A Study Case in India.* ACM GoodIT '23, pp.165–172. **Published: 06 Sep 2023**. DOI
- S. Utomo, A. John, **A. Rouniyar**, H.-C. Hsu, P.-A. Hsiung. *Federated Trustworthy AI Architecture for Smart Cities.* IEEE International Smart Cities Conference (ISC2). **Published: 26 Oct 2022**. DOI

Dataset

- **A. Rouniyar**, S. Utomo, A. John, P.-A. Hsiung. *Air Pollution Image Dataset from India and Nepal.* Kaggle. **Published: 2023**. DOI Kaggle GitHub

IEEE Smart Cities Newsletter (2023)

- *Green Federated Learning: Optimized Communication Costs for Smart City Applications.* Newsletter
- *Trustworthy AI and Federated Learning for Sustainable Smart Cities.* Newsletter

Under Review

- **FLEX-DETECT: Federated Learning for Enhanced Vehicle Detection in Data Heterogeneity with Explainable AI (XAI)**. Information Processing and Management (Elsevier). Manuscript ID: IPM-D-25-03335.

LEADERSHIP & EXTRAS

- Built and scaled engineering processes at Whale Strategy; coached interns and junior engineers.
- Languages: English, Hindi, Nepali; Mandarin (basic).