

# ADARSH ROUNIYAR

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## OBJECTIVE

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AI Engineer with expertise in **deep learning, federated learning, and AI system design**. Experienced in **Docker/K8S, web application development, and large-scale deployments**. Seeking to contribute research and engineering skills to build intelligent platforms and production-ready AI systems in Taiwan.

## EXPERIENCE

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### Chief Technology Officer & AI Software Engineer

Apr 2024 – Present

Whale Strategy Co., Ltd., Kaohsiung, Taiwan

- Designed and deployed verified **smart contracts** on **X Layer and BSC**, integrated into [wstaking.net](https://wstaking.net), securing **234K+ USDT staked**.
- Leading **system design and integration** of a global staking platform for India, Indonesia, and other markets.
- Built algorithmic trading bots using **Python, OKX API, and TradingView**; applied ML for forecasting and anomaly detection.
- Developed an **LLM-powered chatbot** for cryptocurrency insights and market predictions.
- Applied **Docker/K8S** for scalable deployment of AI and blockchain platforms; ensured production reliability.
- Directed technical roadmap, mentored engineers, and established code review practices.

### AI Research Assistant / Project Assistant

Nov 2021 – May 2024

National Chung Cheng University (CCU), Minxiong & Chiayi, Taiwan

- Conducted **research and development** in federated learning, trustworthy AI, and computer vision.
- Implemented **CNNs, adversarial training, and distributed systems** in TensorFlow and PyTorch.
- Designed sustainable **AI learning systems** for traffic, water quality, and maritime monitoring.
- Coordinated cross-organization projects with IIT Ropar, Chitkara University, Chandigarh Government, and Global Fishing Watch.
- Published **4 peer-reviewed papers** (IEEE ISC2, ACM GoodIT, Future Internet) on federated learning and smart-city AI.
- Mentored interns, led weekly research/code reviews, and authored technical documentation.

## PROJECTS

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**Smart-Contract Staking Platform.** Researched, designed, and deployed verified contracts on X Layer and BSC; powering [wstaking.net](https://wstaking.net) with over **234K+ USDT staked**. Included **system integration, Docker/K8S deployment, and web app workflows**.

**Automated Trading Bot.** Built bots in Python using OKX API and TradingView signals; applied ML for forecasting and anomaly detection; deployed with Docker for real-time execution.

**AI-Powered Chatbot.** Designed an LLM-based chatbot for crypto queries, insights, and predictions; integrated into trading workflows.

**Eff-AQI (Federated Learning).** Developed CNN-based aggregation for AQI classification; published results in IEEE/ACM venues.

## SKILLS

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- **AI/ML:** Deep Learning (CNNs), Federated Learning, NLP, RAG, Model Aggregation
- **Programming:** Python, Rust, TensorFlow, PyTorch, Keras
- **System Infrastructure:** Docker, Kubernetes (K8S), Linux, Web Application Development
- **Tools:** Git, VS Code, JupyterHub, Google Colab, Cloud Platforms (GCP)
- **Soft Skills:** Strong Technical Skills, Communication, Leadership, Mentoring

## EDUCATION

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**Master of Science, Computer Science and Information Engineering**, National Chung Cheng University, Taiwan Sep 2021 – Aug 2023

Thesis: Performance-Based Model Aggregation in Federated Learning for Image-Based AQI Classification. GPA: 4.11/4.3

**Bachelor of Technology, 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

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- Federated Adversarial Training Strategies for Privacy & Security in Smart Cities, *Future Internet*, 2023
- Eff-AQI: Efficient CNN-Based Model for Air Pollution Estimation, *ACM GoodIT*, 2023
- Federated Trustworthy AI Architecture for Smart Cities, *IEEE ISC2*, 2022
- Federated Learning Design and Functional Models: Survey, 2022

## LEADERSHIP & EXTRAS

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