



# TRAN NGOC HUNG

Backend Developer | Quantitative Developer | Pentester

## Profile

Backend & Quantitative Developer with 6 years of experience in FinTech systems, including cryptocurrency trading infrastructure, automated trading platforms, and banking application security. I have built high-performance exchange systems, matching engines, trading bots, and backend services interacting with blockchain networks and on-chain contracts. In addition, I have conducted security audits and penetration testing for banking web and mobile applications. My focus is on designing scalable, low-latency, and security-first financial systems for production environments.

## Employment History

### Backend Engineer at Vietnam Silicon, Ho Chi Minh

Mar 2025 — Present

#### AgriTech digital traceability platform — end-to-end supply-chain visibility

- Designed and implemented scalable microservices and REST APIs to capture product lifecycle from farmer to consumer.
- Built core services for product registration, cultivation tracking, QR-based traceability, and inspection workflows to ensure data integrity and compliance.
- Architected distributed systems in Go and Python using NATS for event-driven messaging, Redis for caching, and Airflow for orchestration.
- Designed data models in MongoDB and PostgreSQL to support analytics dashboards and operational monitoring.
- Implemented an AWS image optimization pipeline (S3, Lambda, CloudFront) to improve delivery performance and reduce storage overhead.
- Adopted AI-assisted tools for automated test generation and refactoring to accelerate development and improve code quality.

### Freelance Developer

Jun 2025 — Aug 2026

Developed production-ready financial automation solutions for cryptocurrency portfolio management and investment analytics.

- Built backend services to ingest, synchronize, and normalize Binance trading data (orders, trades, balances) and implemented portfolio accounting with position tracking, trade aggregation, and realized/unrealized P&L calculations.
- Integrated Telegram Bot API for user interaction and automated reporting, improving accessibility and operational visibility.

**Tech stack:** Python, Telegram Bot API, Binance API, SQL/NoSQL

## Details

Ho Chi Minh 700000

Vietnam

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Date of birth

25-05-2000

Nationality

Vietnam

## Links

[Linkedin](#)

[Github](#)

[Personal website](#)

## Skills

Research

Go, NodeJS, Python

Microservice, Distributing system

Web/App Security

Trading platform, fintech business

Group working, English

## Languages

Vietnamese

English

## Hobbies

Technology, finance, research, games, art, and swimming

## Fullstack - Quantitative Developer at Nami Exchange, Ho Chi Minh

Mar 2022 — Mar 2025

### Cryptocurrency trading platform & blockchain solutions — core trading infrastructure to Web3 integrations

Designed and developed high-performance exchange systems, automated trading tools, and multi-chain integrations to support scalable, low-latency trading.

- Designed and implemented a centralized exchange (CEX) supporting spot, swap, and futures with market, limit, stop, and OCO order types, plus real-time market data and order book services.
- Developed a high-performance matching engine in Golang that achieved a **111,698 TPS benchmark** on a shared 4-core VPS, delivering low-latency, reliable order execution.
- Built order routing and liquidity aggregation services integrating external exchanges to improve execution quality and market depth.
- Implemented an Automated Market Maker (AMM) in Golang to manage liquidity and price alignment with external markets.
- Developed a Python-based backtesting platform for strategy evaluation and risk analysis using historical market data.
- Integrated multi-chain solutions (Ethereum, BSC, Solana) for deposit/withdrawal processing and on-chain monitoring; deployed microservices with Kafka, Redis, NATS, MongoDB, MySQL, and Docker.
- Conducted smart contract security reviews and penetration testing following OWASP and blockchain security best practices.

## Develop Personal Projects, Ho Chi Minh

Sept 2022 — Mar 2023

### Web3 development & security projects

- **Booking Care DApp:** Designed and implemented a decentralized application for booking healthcare services with on-chain payments and user workflows.
- **Charity DAO App:** Built governance and donation smart contracts to streamline transparent charitable contributions.
- **NFT Marketplace:** Developed minting, listing and trading flows with wallet integrations and metadata management.
- **Web Vulnerability Scanner:** Engineered a security tool to identify common web application vulnerabilities and improve detection of OWASP Top 10 issues.

## Web/App Security Pentester at Techlab Corporation, Ho Chi Minh

Feb 2020 — Feb 2022

Security specialist focusing on web and mobile applications in the financial sector.

- Performed security assessments and penetration tests for 10+ banking web and mobile applications; documented findings and recommended remediations aligned with OWASP standards.
- Conducted blackbox testing, source-code audits and

cryptographic analysis (AES/RSA) to identify implementation weaknesses.

- Hands-on with Burp Suite, Acunetix, Frida, Jadx and other security tools to reproduce and validate vulnerabilities.

## 🎓 Education

**Bachelor of Information Security, FPT University, Ho Chi Minh**

Sept 2018 — Sept 2022

High-achievement subjects: Programming C, Java, Java OOP, Desktop Java Application, JS/HTML/CSS, Python, Database Systems, Data Structures and Algorithms, Networking, Web Security, Database Security

## 📌 Courses

**Burp Suite Certified Practitioner, PortSwigger**

Jan 2023 — Jan 2028

**Certified Ethical Hacker (CEH), SaigonCTT**

Jan 2021

**Data Communications and Network Services, Cisco**

Jan 2020

## 📄 References

**Than Cong Dinh (Senior Developer) from Nami Foundation**

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