Thanh Nguyen

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Experience

Lead Software Engineer (Contractor)

01/2025 – Present

TRS Project

Remote, Hanoi, Vietnam

- System Design & Architecture: Designed a scalable web scraping system supporting 20+ data sources with integrated local/remote LLM processing. Achieved 99%+ success rate bypassing modern anti-bot protections (Cloudflare Turnstile, Google reCAPTCHA) through advanced evasion techniques.
- **Delivery**: Implemented and deployed the above system which increased human data collection and processing efficiency by >100% (before: 8+ data records in 1 hour; after: 20+ data records in 1 hour).

Technologies used: TypeScript, Restate, PostgresQL, NixOS.

Fullstack Software Engineer

7/2023 - 12/2024

 $Wombat\ Exchange$

Remote, Hongkong SAR

• EVM Data Indexing: Maintained and deployed subgraphs for 3+ EVM chains, which handled 600K+ events. The subgraphs served Wombat Analytics page, which made nearly 250K requests per month. Optimized Wombat Analytics page's loading time from 10+ seconds to 1 second.

Technologies used: TypeScript, AssemblyScript, NextJS, Subgraph.

Software Engineer, Platform Engineer

10/2021 - 12/2022

Xantus Network

Hanoi, Vietnam

• EVM Data Indexing: Designed, implemented, and deployed Events Synchronization services for 10+ EVM-compatible Smart Contracts on 3+ chains. The services handled 100k+ events, provided on-chain data for 3+ projects (Mones, Gunfire Avax, and Oxalus NFT Aggregator). Optimized Block Time Querying Service's loading time from 15+ seconds to less than 3 seconds.

Technologies used: Golang, TypeScript, go-ethereum, web3js, Apache Kafka.

Software Engineer

4/2021 - 12/2021

Teko Vietnam

Hanoi, Vietnam

• Master Product Data: Designed, implemented, and deployed data pipelines, data models, and REST API of Product Matching Service which processed 10K+ products.

Technologies used: Python, Golang, FastAPI, SQLModel.

Software Engineer, System Engineer

6/2019 - 8/2020

AI Academy Vietnam

Hanoi, Vietnam

• Data Crawling: Designed, implemented, and deployed Data Crawling Service for 50+ news sources.

Technologies used: Python, Flask, SQLAlchemy, pika, RabbitMQ, APScheduler.

EDUCATION & CERTIFICATION

Master, Finance Engineering

7/2024 – Present

 $WorldQuant\ University$

Remote, USA

Engineer, Software Engineering

6/2016 - 6/2021

Le Quy Don Technical University

Hanoi, Vietnam

• **GPA**: 3.13

- Specialized Individuals Informatics Olympiad 2017: Second Prize
- Super Cup Informatics Olympiad 2018: Third Prize

Side Projects

Sifintra: A simple finance tracker using Rust + SvelteKit github.com/thanhnguyen2187/sifintra.

KVS: A toy key-value database using Rust github.com/thanhnguyen2187/playground/tree/master/kvs.

CamLisp: Simple Lisp/Scheme interpreter in OCaml. Source at: github.com/thanhnguyen2187/camlisp.