Trịnh Huy Hoàng
Software Engineer

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// OBJECTIVE

I specialize mainly as a backend developer, with proficiency in Golang, and a primary focus on the blockchain landscape. My professional identity is characterized by a commitment to product engineering, emphasizing the successful delivery of products to production. Concurrently, I possess a keen research-oriented mindset, driven to delve into complex technical challenges.

I am eager to leverage my extensive experience, skills, and expertise in contributing to a Web3 product company that is dedicated to creating genuinely valuable solutions for customers and disrupting the prevailing financial system.

// WORK EXPERIENCE

Kyber Network
Feb 2021 - Present

Software Engineer

Main responsibilities:

1. Took over the development of the DEX aggregator project on kyberswap.com:

- Scope: Undertook the refactoring and maintenance of legacy source code, transforming a simple monolith into a microservices-oriented architecture. This included the creation of a router service for pathfinding algorithms and a pool service for syncing pool data.
- Integrated with many new liquidity protocols: Uniswap V3, Dodo, Curve, Balancer, Synthetix, ...
- Developed the pool service from scratch, ensuring the seamless synchronization of pool data from the blockchain to the primary Redis database.
- Conducted a comprehensive code refactoring, adhering to the principles of Clean Architecture.
- Separated a common library for DEX simulation logic, fostering reusability across various projects.
- Result: Despite the substantial workload, we have successfully stabilized the system for over one year, and the architecture is now poised for scalable expansion.

2. Led the establishment of the on-chain price service:

- Scope: Designed and implemented the service from the ground up, including the formulation and implementation of the algorithm (modified SPFA) to construct a price graph from a single quote token.
- Implemented a robust storage layer for the swift persistence of calculated prices using Redis and TimescaleDB.
- Result: The process of constructing a price graph for approximately 250,000 tokens and subsequently storing it in both Redis and TimescaleDB was completed within an impressive timeframe of around 20 seconds. This performance is notably commendable, especially considering the real-time nature of the price feed.

3. Led the creation of a simulation transformer service, ensuring smooth integration with the core simulation engine through gRPC:

- Scope: Redesign the architecture to enhance interoperability with other consumer services
- Implemented the transformer service and seamlessly integrated it with other consumer services, such as router and on-chain price services, via gRPC.

4. Collaborate with cross-functional teams to establish the comprehensive architecture for all Kyber services.

5. Take over and continue to build/optimize the solver for Optimex - the DeFi layer for Bitcoin https://optimex.xyz/

- Handle requests from Dapp users and match them with the best quote from private market makers
- Handle events from custom L2 blockchain (Conduit) to update trade state correctly
- Use a task queue to process state transitions for trades, handle retry, race condition

Linagora Vietnam
April 2020 - Feb 2021

Full-Stack Developer

Main responsibilities:

- Worked on the Open-PaaS Enterprise Social Network (Calendar, Inbox, Contact)
- Working on the SaaS team (new): design database, set up the backend code following Clean Architecture, review code

Tomochain
Nov 2018 - July 2019

Full-Stack Developer / Team Leader

Main responsibilities:

- Led the development of the decentralized exchange, TomoDEX (https://twitter.com/TomoDexOfficial).
- Coded the backend using Golang and occasionally contributed to the frontend using React.js.
- Conducted thorough code reviews.
- Orchestrated and reported on the team's progress through strategic planning.

Scopic Software
April 2017 - Oct 2018

Full-Stack Developer

Main responsibilities:

- Engaged in remote collaboration on outsourced projects with a global team.
- Conducted interviews for potential new developers within the company.

Magestore
June 2015 - March 2017

Magento Developer

Main responsibilities:

- Developed extensions for Magento, focusing on Inventory and Point of Sale (POS) functionalities.
- Took part in the development of canifa.com, contributing to the construction of the website.

// STARTUPS/PROJECTS

Performflow (July 2019 - March 2020)

Customer	Our startup
Description	- Automate form approval workflow like leave request, invoice request, booking form with form approvals & convert form to PDF via form publisher - There are more than 1M users
Team size	3
My position	The tech guy (co-founder)
My responsibilities	- Build the Google Form plugin called Performflow: https://workspace.google.com/marketplace/app/performflow_form_approvals_workflow_publ/175817313914 - Build the serverless backend to handle the approval workflow - Build the website to handle payment https://performflow.com/
Technologies used	- Google Apps Script - React.js - Firebase Functions - Firebase Firestore

// SKILLS

Golang

Blockchain Overall Knowledge

Databases (Postgresql, Redis, MongoDB)

Message Brokers (Kafka, RedPanda, PubSub)

Queue (RabbitMQ, Redis asynq, BullMQ)

Container Orchestration (Docker, k8s)

Cloud Computing (Google Cloud, fly.io, DigitalOcean, Vercel)

Node.js

Rust (learning)

MEV (learning)

Smart contract security (learning)

// INTEREST

- Learn random things that make my mind spark
- Chess
- Pool

// EDUCATION

Sep 2010 - May 2014

Hanoi University of Science and Technology
Major: Information Technology
GPA: 3.23/4

// CERTIFICATIONS

Machine Learning with TensorFlow on Google Cloud Platform
2020

// HONORS & AWARDS

Kyber MVP
2023