

Linh Tran

Software engineering, machine learning.
I enjoy optimizing code performance to the degree possible.

About me

- Strongest stack as developer: Node/Javascript, MongoDB
- Glad to have made your Spotify next song recommendation a bit **faster**
- Most of my experience is 60% engineering, 40% researching. I am inclining towards roles with more researching.
- I am intrigued by the recent rise of multi-modal AI like the newly introduced Google Gemini, and would love to join related R&D endeavor

Experience

**Jan - Dec
2023**

Tech lead - Sotatek, Vietnam

Out-sourced projects for clients including The Cardano Foundation (7th largest blockchain) and Devexperts

In most projects, I act as the person to understand clients' key pain points & challenges, and propose matching solutions. I supervise a small team on technical nuances and collaborate with project managers to ensure project timeline.

Ballistic project

- Large scale firearm identity matching system through processing 3D scans of bullets' toolmarks, trained on open **NBTRD dataset**
- Transform search time from minutes to sub-seconds by replacing open-sourced R engine with Python implementation of **HNSW** for vector search
- Derive from open-source algorithms (e.g **CMC**, **CMS**) a model that converts 3D scans into searchable vector embeddings
- Ensuring service availability & quality through CI/CD pipeline
- Tech stack: Java Spring Boot, R, Three.js for 3D model visualization, AWS, Github Actions

Devexa project

- AI-based solution for customer service for financial service providers
- Lead the development of chat utility applications
- Tech stack: Kotlin, Spring Boot, MongoDB + MySQL

**Jan - Dec
2022**

Senior software engineer - Garena (Sea group)

Largest mobile game company in Southeast Asia.

- Build high-performance backend for event sites of leading games (i.e **League of Legends**, **Arena of Valor**), serving millions of gamers concurrently

- Tech stack:
 - Infra: SeaCloud (similar design with AWS), Nginx, iptables, Docker, Jenkins CI
 - Backend: FastifyJS, GraphQL, PostgreSQL
 - Frontend: ReactJS

Jan - Oct 2021 Self-employed - XSeed cloud gaming

Cloud gaming service utilizing kernel-based virtual machines and NVIDIA vGPU as game server, customized open-source **Moonlight** as clients

- Tech stack:
 - Infra: Kernel-based Virtual Machine, NVIDIA vGPU
 - Backend: NodeJS, C++ for Node native plugin, Java

Jan 2018 - Dec 2020 Software engineer - Pique AI (now part of **MoMo** - largest mobile wallet in Vietnam)

Start-up providing AI recommendation service for small-medium enterprises. The AI agent can read, see, hear and understand user behavior and recommend relevant product/services. It all started with a **paper**

- This is my first official work - started while studying, convinced by a promising start-up story.
- We worked in a small team, rotating responsibilities on software engineering, data science, and service maintenance
- Highlight projects:
 - Music recommendation (audio content based) for NCT - 2nd largest digital music provider in Vietnam
 - Dating recommendation (visual content based) for a Japanese client
 - Luxurious jewelry recommendation (text-visual hybrid content) for **Glamira**
- My highlight contribution: Doubled the performance of our recommendation API, by optimizing k-nearest-neighbor classifier (**Spotify's open-source pr #387**)
- Transform client's VueJS UI so that our AI integration is seamless, which results in much better end-user retention through A/B testing.
- Tech stack:
 - Data science: Python, Tensorflow
 - Backend: NodeJS, ExpressJS, gRPC
 - Infra: AWS, Jenkins CI, Ansible Playbook, Docker

Education

2012-2019 Computer Science - Hanoi University of Science and Technology, Vietnam
Thesis: Learned video compression for game streaming application

2015-2016 Erasmus Scholarship Exchange - Uppsala University, Sweden