

An, Tran-Cong-Viet

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EDUCATION **Undergraduate** *September 2019 - June 2023*

Vietnam National University - University of Engineering and Technology, HN

- **Major:** Information Technology
- **Degree:** Bachelor in Information Technology, Honors Program

WORK **AI Engineering Intern** *October 2019 - August 2021*

EXPERIENCE Vingroup Big Data Research Institute, Hanoi, Vietnam

- Research and develop production-used mathematical representation model for **Natural Language Processing** (Word embeddings, Phrase-based text embedding, Pretrained representations).
- Deploy **Speech Synthesis Neural Network models** on edge computing devices.
- Research on improving speech synthesis deep learning models' performance on edge devices in term of latency and quality.
- **Reference:** Mr. Dang-Khoa Mac, Ph.D, Hanoi University of Science and Technology

De-Fi Application Developer *August 2021 - January 2022*

Pendle Finance, Singapore

- Develop data infrastructure for DApps.
- Develop automated CI workflows for Development Teams.

Lead Software Engineer *January 2022 - Now*

YoungIT LLC

- Solution Architect for outsourcing clients.
- Perform both as lead software engineer and Agile project manager for outsourcing projects.
- Develop on-premise infrastructure solution for internal and external applications.
- Apply Low-code/No-code technologies for rapid prototyping of MVP for startup clients.

PAST PROJECTS

VinFast ViVi Personal Assistant

with VinBDI

- Design and implement **Neural Text-to-Speech Framework** for Android Systems, work along with AI researchers to integrate deep learning TTS models into the framework.
- **Pytorch Mobile** models are first supported for rapid prototyping. **Tensorflow Lite** models are gradually integrated and superseded the former for performance reason.
- Perform extensive benchmark on various devices to provide insight for AI research team, which will help with model optimization. Some key metrics are focused on: *response time, realtime factor, CPU - GPU utilisation.*
- Design and implement a **static, rule-based Text-to-Speech Normalisation Framework** for converting written form into spoken form text. The result is compared against several groundtruth and minimum Levenshtein Distance is calculated for each sentence.
- **Notable results:**

Successfully optimized the inference flow to reduce **response time** to 500-1000ms, increase nonlinearly in regard to input length.

With limited success, transfer several suitable calculations to **GPU** to offload CPU utilisation.

TTS normalisation framework reached 97% accuracy.

Cosmetic Knowledge Archive and Beauty Blog

Freelance Project

- Implement a full fledged **Knowledge Archive and Blog** for cosmetic blogger Callmeduy. Website is currently residing at <https://callmeduy.com>.
- Work as tech-lead of a freelance team of three.
- Utilize **NextJS** for frontend and blog rendering.
- Deploy **StrapiJS** framework for quickly scaffolding a Headless CMS.
- Design **PostgreSQL** database schemas for the whole project.
- Provide integration strategy for other team members.
- Deploy the project using **Docker and Docker Compose** for a simple but robust configuration

Kryptos News

With YoungIT LLC

- Implement a **Blogging System** for Kryptos Media Website currently residing at <https://www.kryptos.news>
- Utilize **NextJS static page generation** and **Vercel** CDN for efficient frontend rendering.
- Utilize **Directus** framework for quickly scaffolding a Headless CMS.
- Utilize Firebase solution for offloading user interactions capacity.
- Estimated service capacity: 200 concurrent users.

PROFESSIONAL SKILLS

Operating System and Basic Programming Tool

- **Operating System:** MacOS (daily driver), Linux (deployment environment), Window Server.
- **Command line Shell:** Zsh, Bash
- **Version Control System:** Git
- **Miscellaneous:** Vim, SSH, GPG

Programming Languages

- **JavaScript - TypeScript:** Proficient, familiar with toolchains, production processes. Used **TypeScript** extensively in NodeJS backend projects.
- **Java - Android, Python:** Also proficient. Have employed moderately in software production. Capable of producing reusable libraries.
- **SQL:** Production experience with several popular dialect: *PostgreSQL*, *Microsoft SQL Server*, *SQLite*, *MySQL*.
- **Golang, Dart, C/C++:** Familiar with syntax and programming patterns. No production experience.
- **Swift:** Basic understanding for application development for iOS devices.

Operational Technology

- **Containerization:** Docker, Docker Swarm: Low to moderate expertise in production context.
- **Database:**
 - MongoDB:** Can employ efficiently in a NodeJS project.
 - PostgreSQL - MySQL:** Used in various Java, Python, Golang, NodeJS project.
- **Framework**
 - Web Application:** Node.js, React.js, Django, Vanilla JS with HTML
 - Mobile Application:** Android, iOS, Flutter, React.js as Progressive Web App

OTHER SKILLS

- **Language:**
 - Vietnamese:** Native
 - English:** Bilingual Efficiency, IELTS 7.5
 - French:** Basic Fluency
- Microsoft Office, LaTeX typeset