

Hoang Tran, BSc.

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About Me

- 1 A **software engineer** and **NLP enthusiast**, eager to learn new knowledge and try new skills, dream of creating *useful and awesome applications* that can *solve real-world problems*.
- 2 Some of my hobbies are *reading books* (both technical and non-technical) and *learning new foreign languages*.
- 3 Outside of the tech world, I enjoy playing sports, especially badminton.

Working and Research Experience

06/2023 – present **Software Engineer**, NAB Innovation Centre Vietnam

12/2023 – present **Research Member**, URA Research Group, Ho Chi Minh City University of Technology: to

- develop a chatbot for university admission consultant, based on our in-house LLMs Ura-Llama and *Retrieval-Augmented Generation*.
- work on semantic parsing from natural language (NL) to first-order logic (FOL) as a stage in the question-answering with symbolic reasoning pipeline.

05/2024 – present **Open-source Contributor**, at the start-up All Hands AI, on the OpenHands project: working on LLM-based agent development, multi-agent workflows for software development and integration of benchmarks, result visualization to evaluate them.

Education

2020 – 2024 **B.Sc., Ho Chi Minh City University of Technology** Computer Science.
Thesis title: *Multi-agentic Systems for GitHub Issue Resolution*.

2024 **AI Alignment Research Engineer Accelerator (ARENA) Program** Auditing.
A program designed to equip participants with technical AI safety skills. It dives into specific areas of the field like *interpretability*, *RL - RLHF*, and *evaluation*.

Research Publications

Preprint

- 1 X. Wang, B. Li, Y. Song, *et al.*, *Opendevin: An open platform for ai software developers as generalist agents*, 2024. arXiv: 2407.16741 [cs.SE]. 🔗 URL: <https://arxiv.org/abs/2407.16741>.

Skills

AI/ML/DL/RL	<ul style="list-style-type: none">• fundamental knowledge with a focus on Natural Language Processing (NLP) and Large Language Models (LLMs).• experience with popular DL frameworks: PyTorch, HuggingFace, ...• knowledgeable in basics of MLOps practices and tools: DVC, GCP, W&B, FastAPI, and Streamlit.
Programming	<ul style="list-style-type: none">• fundamental knowledge of Data structures & Algorithms• experience with various languages e.g., Python, Java, JavaScript/TypeScript, GoLang, SQL, \LaTeX, ...
Software Engineering	experience in multiple aspects, ranging from back-end, front-end, mobile development to DevOps, testing, security practices.
Languages	<ul style="list-style-type: none">• <i>Vietnamese</i>: fluent• <i>English</i>: IELTS 7.0• <i>Chinese</i>: HSK₁• <i>France</i>: A1.1

Miscellaneous Experience

Side Projects

Dethispace	<p>A project developed in the <i>Google Developer Student Club (GDSC) Hackathon 2024</i>.</p> <ul style="list-style-type: none">• <i>About</i>: Dethispace is a social network where users can create new tests with their documents, new sessions to practice and invite friends to study together. The practice history is saved for later review. The goal is to help students to be more productive in their learning journey.• <i>Skills</i>: Firebase - Svelte - TypeScript• <i>Project link</i>: available at this URL ↗
Chat with PDF	<ul style="list-style-type: none">• <i>About</i>: In this project, we utilize the Langchain framework with OpenAI's GPT_{3.5} API and Pipecone database to store text embeddings, facilitate the users with the ability to chat with an agent that understands the content of a PDF file.• <i>Skills</i>: Langchain - Large Language Model - Natural Language Processing - SQL• <i>Source code</i>: available at this GitHub URL ↗
iDunno	<p>A group membership service based on Gossip dissemination.</p> <ul style="list-style-type: none">• <i>About</i>: In this project, we build a distributed group membership service, which can be used to implement other higher-level distributed systems. The service functionalities, as the name implies, are to manage membership and broadcast messages to the cluster. It does that by maintaining, at each machine in the system a list of the group, i.e., other machines that are connected and up.• <i>Skills</i>: Java - Distributed Systems - Network Programming• <i>Source code</i>: available at this GitHub URL ↗

Certification and Courses

2023	AWS Certified Cloud Practitioner and AZ-900: Microsoft Azure Fundamentals . Cloud Computing Fundamentals.
2024	CMU's CS11-711 Auditing . Advanced Natural Language Processing.