

TRAN VAN TRONG THANH

+84 989955612 [◇](mailto:trantrongthanhhp@gmail.com) thanhvt.github.io

trantrongthanhhp@gmail.com [◇](https://linkedin.com/in/thanhvt) linkedin.com/in/thanhvt [◇](https://github.com/thanhvt) github.com/thanhvt

EXPERIENCE

AI Research Engineer

FPT Software — *largest IT services company in Southeast Asia*

Aug 2023 - Present

Hanoi, Vietnam

- Conducted research in Multimodal AI and Generative Models, focusing on speech and audio-related problems.
- Conducted research on improving protein characteristics on sequence-level, leading to a series of three accepted papers at two Q1 journals (IF 12 and 6.2) and one A* conference.

Student Researcher

Institute for Artificial Intelligence

Sep 2022 - May 2023

VNU University of Engineering and Technology, Hanoi

- Built and made open-source the error analysis tool for multi-target multi-camera tracking system ([GitHub](#)).
- Developed graph neural network-based solution for re-identification problem in multi-target multi-camera tracking system.

Speech Processing Intern

VinBigData — *Conversational AI solutions* (now VinSmart Future)

Oct 2021 - Nov 2022

Hanoi, Vietnam

- Designed a telephony-speech augmentation pipeline that reduced ASR WER by 25% on production benchmarks.
- Developed a neural decoder that outperforms vanilla beam search by 10%.
- Delivered a low-latency streaming ASR (≈ 70 ms end-to-end, 12% WER on in-house dataset) for automotive deployment.
- Maintained and developed company's in-house speech recognition framework.

EDUCATION

Bachelor of Computer Science, VNU University of Engineering and Technology

Aug 2019 - Jun 2023

Top 10% of the graduating cohort — GPA: 3.71/4.0

PUBLICATIONS

(*) Equal contribution

Conference Papers

Speech Reconstruction from Silent Videos via Acoustic-Semantic Decomposed Modeling | [Link](#)

Long-Khanh Pham, **Thanh V. T. Tran**, Minh-Tan Pham, Van Nguyen.

Interspeech 2025.

Effective Context Modeling Framework for Emotion Recognition in Conversations | [Link](#)

Cuong Tran Van*, **Thanh V. T. Tran***, Van Nguyen, Truong Son Hy.

ICASSP 2025.

GROOT: Effective Design of Biological Sequences with Limited Experimental Data | [Link](#)

Thanh V. T. Tran*, Nhat Khang Ngo*, Viet Anh Nguyen, Truong Son Hy.

KDD 2025.

Journal Papers

Latent-based Directed Evolution accelerated by Gradient Ascent for Protein Sequence Design | [Link](#)

Thanh V. T. Tran, Nhat Khang Ngo, Viet Thanh Duy Nguyen, Truong Son Hy.

Machine Learning: Science and Technology.

Protein Design by Directed Evolution guided by Large Language Models | [Link](#)

Thanh V. T. Tran, Truong Son Hy.

IEEE Transactions on Evolutionary Computation.

Under Review

Precise Video-to-Audio Generation with Cross-Modal Alignment in Latent Space

Thanh V. T. Tran, Ngoc-Son Nguyen, Luong Tran, Long-Khanh Pham, Paarth Neekhara, Shehzeen Samarah Hussain, Van Nguyen.

Submitted to AAAI 2026.

DiFlow-TTS: Compact and Low-Latency Zero-Shot Text-to-Speech with Factorized Discrete Flow Matching

Ngoc-Son Nguyen, **Thanh V. T. Tran**, Hieu-Nghia Huynh-Nguyen, Truong Son Hy, Van Nguyen.

Submitted to ICLR 2026.

AgentSound: A LLM-Driven Multi-Agent Framework for Augmenting Sounds with Semantic Context Guidance

Van Truong Hoang, Viet Pham, **Thanh V. T. Tran**, Van Nguyen, Harry Nguyen.

Submitted to ICASSP 2026.

TECHNICAL SKILLS

Languages: Python, Bash, C/C++, \LaTeX , Java, SQL, JavaScript, HTML/CSS

Frameworks/Libraries: PyTorch, TensorFlow, Scikit-learn

Developer Tools: Jupyter, Git, Linux, Docker, MongoDB

ACHIEVEMENTS

- Top 2 in Automatic Speech Recognition - Task 1 of VLSP 2022 competition ([*Certificate*](#)).
- Top 3 in Automatic Speech Recognition - Task 2 of VLSP 2022 competition ([*Certificate*](#)).
- Third prize in Scientific Research Contest held by ComSci Department for college students ([*Certificate*](#)).
- Merit scholarships awarded from 2019 to 2023.