

# Viet Nguyen

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## EDUCATION

### Johns Hopkins University

*Ph.D. in Computer Engineering*

- Advised by Prof. [Vishal M. Patel](#)

Baltimore, USA

2025 - Present

### Hanoi University of Science and Technology (HUST)

*B.E. in Information Technology*

- Highest GPA in graduating class (3.93/4.0)

- Thesis: Some improvements for Diffusion Probabilistic Models

Hanoi, Vietnam

2019 - 2023

## PUBLICATIONS

(\*) denotes equal contribution

**Viet Nguyen\***, Giang Vu\*, Tung Nguyen Thanh, Khoat Than, Toan Tran, “On Inference Stability for Diffusion Models”, **Oral Presentation (Top 2%)** in *Proceedings of the 38th AAAI Conference on Artificial Intelligence*, 2024. [pdf]

**Viet Nguyen\***, Anh Nguyen\*, Trung Dao, Khoi Nguyen, Cuong Pham, Toan Tran, Anh Tran, “Supercharged One-step Text-to-Image Diffusion Models with Negative Prompts”, *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)*, 2025. [pdf, page]

## PREPRINTS

(\*) denotes equal contribution

Anh Nguyen\*, **Viet Nguyen\***, Duc Vu\*, Trung Dao, Chi Tran, Toan Tran, Anh Tran, “Improved Training Technique for Shortcut Models”, *Under Review*, 2025.

Bao Tran\*, **Viet Nguyen\***, Anh Tran, Toan Tran, “Dual-Model Defense: Safeguarding Diffusion Models from Membership Inference Attacks through Disjoint Data Splitting”, *Under Review*, 2024. [pdf]

## EXPERIENCE

### Qualcomm AI Research, Vietnam

*AI Research Intern*

Apr 2025 - Jul 2025

- **Advisor:** Dr. [Toan Tran](#), Dr. [Anh Tran](#)
- **Research interest:** Diffusion Models, Multimodal Learning
- **Past works:**
  - \* Improved the quality and controllability of one-step text-to-image diffusion models.
  - \* Improved the training of shortcut models.

### VinAI Research, Vietnam

*AI Research Engineer*

Feb 2023 - Mar 2025

- **Advisor:** Dr. [Toan Tran](#), Dr. [Anh Tran](#), Dr. [Dzung Nguyen](#)
- **Research interest:** Diffusion Models, Multimodal Learning, Trustworthy GenAI
- **Past works:**
  - \* Proposed a novel sequence-aware loss function to enhance image quality in unconditional diffusion models.
  - \* Personalized Text-to-Image Diffusion model: Built a celebrity dataset, trained personalized diffusion models, and distilled them into few-step model for faster generation.
  - \* Developed a defense method to protect diffusion models from membership inference attacks.
  - \* Diffusion models for generating Zoom background images: Fine-tuned to produce high-quality, landscape-resolution outputs.

### School of Information and Communications Technology, HUST

*Teaching Assistant*

Oct 2024

- Course: Generative AI Engineering

## Data Science Lab, HUST

Mar 2021 - Aug 2023

AI Research Assistant

- **Advisor:** Assoc. Prof. [Khoat Than](#)
- **Research interest:** Deep Generative Models, Diffusion Models
- Acquired background knowledge and reimplemented VAEs, GANs, and Diffusion Models.
- Conducted seminars on generative models and mentored newcomers through reimplementation projects and technical guidance.

## AWARDS AND ACHIEVEMENTS

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Awarded <b>Excellent Scholarship</b> in all semesters (HUST)	2019 - 2023
Honored with the <b>highest GPA</b> among all students in the graduating class of 2023 (HUST)	Sep 2023
Won the <b>Best Thesis Presentation Award</b> (HUST)	Aug 2023
Secured <b>2<sup>nd</sup></b> position at <b>Developer Circles Vietnam Innovation Challenge in Hanoi</b>	Dec 2020

## CERTIFICATIONS

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<b>Python for Everybody</b> Certificate issued by University of Michigan	Aug - Sep 2020
<b>Machine Learning</b> Certificate issued by Stanford University	Sep 2020
<b>Deep Learning Specialization</b> Certificate issued by deeplearning.ai	Sep - Oct 2020

## TECHNICAL SKILLS

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**Languages:** C, Python  
**Tools:** PyTorch, TensorFlow, Git

## REFERENCES

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### Dr. [Toan Tran](#)

Research Scientist, Head of Machine Learning team, Qualcomm AI Research, Vietnam  
toatran@qti.qualcomm.com

### Dr. [Anh Tran](#)

Senior Research Scientist, Head of Computer Vision team, Qualcomm AI Research, Vietnam  
anhtra@qti.qualcomm.com

### Assoc. Prof. [Khoat Than](#)

Director of Data Science Laboratory, HUST  
khoattq@soict.hust.edu.vn