

# Viet Nguyen

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## EDUCATION

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

Hanoi, Vietnam

*B.E. in Information Technology*

2019 - 2023

- Highest GPA in graduating class (3.93/4.0)
- Thesis: Some improvements for Diffusion Probabilistic Models

## PUBLICATIONS

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(\*) 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]

## PREPRINTS

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(\*) denotes equal contribution

**Viet Nguyen\***, Anh Nguyen\*, Trung Dao, Khoi Nguyen, Cuong Pham, Toan Tran, Anh Tran, “SNOOPI: Supercharged One-step Diffusion Distillation with Proper Guidance”, *Under Review*, 2024. [pdf, page]

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

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### VinAI Research

Feb 2023 - Now

*AI Research Resident*

- **Advisor:** Dr. [Toan Tran](#), Dr. [Anh Tran](#)
- **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.
  - \* Improved the quality and controllability of one-step text-to-image diffusion models.
  - \* Developed a defense method to protect diffusion models from membership inference attacks.

### School of Information and Communications Technology, HUST

Oct 2024

*Teaching Assistant*

- Course: Generative AI Engineering

### VinAI Research

Apr - Jul 2024

*AI Research Engineer*

- **Advisor:** Dr. [Dzung Nguyen](#), Dr. [Anh Tran](#), Dr. [Toan Tran](#)
- Personalized Text-to-Image Diffusion model: Built a celebrity dataset, trained personalized diffusion models, and distilled them into few-step model for faster generation.
- Diffusion models for generating Zoom background images: Fine-tuned to produce high-quality, landscape-resolution outputs.

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

## CERTIFICATIONS

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

## 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, VinAI Research, Vietnam  
v.toantm3@vinai.io

**Dr. Anh Tran**

Senior Research Scientist, Head of Computer Vision team, VinAI Research, Vietnam  
v.anhtt152@vinai.io

**Assoc. Prof. Khoat Than**

Director of Data Science Laboratory, HUST  
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