

Duc Vu

🏠 duchongvu01@gmail.com

🏠 ducvu.github.io

🎓 [Google Scholar](#)

EDUCATION

Miami University - Oxford, Ohio

Bachelor of Science, Data Science and Statistics

Bachelor of Arts, Economics

Honors: Cum Laude

2019 - 2024

GPA: 3.83/4.0

PUBLICATIONS

Preprints

* - equal contribution

2. **Anti-I2V: Safeguarding your photos from malicious image-to-video generation.**

Duc Vu, Anh Nguyen, Chi Tran and Anh Tran.

Under Review, 2025.

1. **Improved Training Technique for Shortcut Models.**

Anh Nguyen, Viet Nguyen, Duc Vu, Trung Tuan Dao, Chi Tran, Toan Tran and Anh Tran.

Under Review, 2025.

Conference Publications

3. **SwiftBrush v2: Make Your One-step Diffusion Model Better Than Its Teacher.**

Trung Tuan Dao, Thuan Hoang Nguyen*, Thanh Le*, Duc Vu*, Khoi Nguyen, Cuong Pham and Anh Tran.

European Conference on Computer Vision (ECCV), 2024.

2. **EFHQ: Multi-purpose ExtremePose-Face-HQ dataset.**

Trung Tuan Dao*, Duc Vu*, Cuong Pham, Anh Tran.

Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2024.

1. **Preserving simulation insight while removing data: verification of compressed simulation traces via machine learning.**

My Nguyen, Duc Vu, Anh Vo, Luke Liang and Philippe J Giabbanelli.

Annual Modeling and Simulation Conference (ANNSIM), 2023.

WORK EXPERIENCE

Qualcomm Research

AI Research Resident

Advisors: Dr. Anh Tran

March, 2025 - Current

Hanoi, Vietnam

- Introduced an image cloaking framework that effectively protects user images from malicious use across diverse image-to-video models, including both UNet- and DiT-based architectures.
- Devised key architectural modifications and training protocols to enhance the performance of Shortcut models.

VinAI Research

AI Research Resident

Advisors: Dr. Anh Tran

March, 2022 - March, 2025

Hanoi, Vietnam

- Engineered a dataset of 30,000 augmented infrared facial images using a 3D Morphable Model, boosting driver facial landmark detection accuracy by 15% for driver monitoring system (DMS).
- Established a benchmark dataset of 450,000 frames for extreme head poses, cutting error rates by 10-20% for the then-current state-of-the-art face generation and reenactment techniques.
- Introduced a fused one-step diffusion model by combining two efficient training strategies and a novel CLIP loss, resulting in a then-current state-of-the-art Fréchet Inception Score of 8.14.

PIXTA Co. Ltd

Data Scientist Intern

December, 2020 - July, 2021

Hanoi, Vietnam

- Engineered a dataset of 30,000 augmented infrared facial images using a 3D Morphable Model, boosting driver facial landmark detection accuracy by 15% for driver monitoring system (DMS).
- Established a benchmark dataset of 450,000 frames for extreme head poses, cutting error rates by 10-20% for the then-current state-of-the-art face generation and reenactment techniques.
- Introduced a fused one-step diffusion model by combining two efficient training strategies and a novel CLIP loss, resulting in a then-current state-of-the-art Fréchet Inception Score of 8.14.

SELECTED AWARDS AND HONORS

- President's List - Miami University, Oxford
- Dean's List - Miami University, Oxford

Fall 2019, Spring 2023
Spring 2020, Spring 2021, Fall 2022

PROFESSIONAL RESPONSIBILITIES

- *Reviewing:* CVPRW (2025), ACCV (2025).

REFERENCES

Dr. Anh Tran

Principal Engineer, Qualcomm AI Research, Vietnam
anhtra@qti.qualcomm.com

Assoc. Prof. Cuong Pham

Dean, Faculty of Artificial Intelligence, Posts and Telecommunications Institute of Technology (PTIT), Vietnam
Director, PTIT.AI Research Lab, Posts and Telecommunications Institute of Technology (PTIT), Vietnam
Visiting Research Scientist, Qualcomm AI Research, Vietnam
pcuong@qti.qualcomm.com

Dr. Phong Nguyen

Senior Engineer, Qualcomm AI Research, Vietnam
phongnh@qti.qualcomm.com