

# Duc Vu

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 ducvu.github.io

 Google Scholar

## EDUCATION

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### 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

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### 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 Giabbani.

*Annual Modeling and Simulation Conference (ANNSIM), 2023.*

## WORK EXPERIENCE

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### 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**

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

*Fall 2019, Spring 2023*

*Spring 2020, Spring 2021, Fall 2022*

## **PROFESSIONAL RESPONSIBILITIES**

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

## **REFERENCES**

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### **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*