

Research Statement

My long-term goal is to build systems that can *understand, reason, plan*, and *develop physical intuition* about the world while remaining *efficient, scalable, and controllable*.

Toward **superhuman intelligence** through **efficient, scalable, and controllable** generative and world models.

Toward this goal, my work on *one-step* generative modeling, spanning both *pretraining* and *distillation* (ECCV, NeurIPS, and ICCV), enables real-time, high-fidelity synthesis, while my work on *multimodal representation* (CVPR and ICCV) uncovers internal semantics for zero-shot, fine-grained control.

Education

Johns Hopkins University

Doctor of Philosophy, Electrical and Computer Engineering

Research: **Generative and World Models**

Aug 2026 – expected 2030

Advisor: Professor Vishal M. Patel

Research Experience

Qualcomm AI Research

Predoctoral Researcher

3 yrs 1 mo · Aug 2023 – Aug 2026

- **Five publications** in generative modeling at ECCV, CVPR, ICLR, NeurIPS, and ICCV.
- **Two U.S. patents.**
- Recipient of the 2025 **Outstanding Resident** in Research and Applied Demo Award, Qualcomm AI Residency Program.
- Advised by **Principal Scientist Dr. Anh Tran**. Completed intensive PhD-level training in a selective research residency, conducting research from problem formulation and experimental design to rigorous evaluation and publication.

Selected Publications

(*) denotes equal contribution

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| ECCV
POSTER
SLIDES | Cross-Space Distillation: Teaching One-Step Students with Modern Diffusion Teachers
Anh Nguyen [*] , Ngan Nguyen [*] , Duc Vu [*] , Trung Dao, Viet Nguyen, Quan Dao, Kien Nguyen, Chi Tran, Phong Nguyen, Khoi Nguyen, Cuong Pham, Dimitris Metaxas, Vishal M Patel, and Anh Tran
<i>In European Conference on Computer Vision, 2026</i>
QUALCOMM JOHNS HOPKINS UNIVERSITY RUTGERS UNIVERSITY UNIVERSITY OF WISCONSIN-MADISON |
| NeurIPS
POSTER
SLIDES | Improved Training Technique for Shortcut Models
Anh Nguyen [*] , Viet Nguyen [*] , Duc Vu, Trung Dao, Chi Tran, Toan Tran, and Anh Tran
<i>In The Thirty-nine Annual Conference on Neural Information Processing Systems, 2025</i>
QUALCOMM |
| CVPR
POSTER
SLIDES | Anti-I2V: Safeguarding your photos from malicious image-to-video generation
Duc Vu, Anh Nguyen , Chi Tran, and Anh Tran
<i>In IEEE/CVF Conference on Computer Vision and Pattern Recognition, 2026</i>
QUALCOMM |
| ICLR | Revisit Visual Prompt Tuning: The Expressiveness of Prompt Experts
Anh Nguyen [*] , Minh Le [*] , Huy Nguyen, Chau Nguyen, Anh Tran, and Nhat Ho
<i>In International Conference on Learning Representations, 2026</i>
QUALCOMM THE UNIVERSITY OF TEXAS AT AUSTIN |
| ICCV
POSTER
SLIDES | Supercharged One-step Text-to-Image Diffusion Models with Negative Prompts
Anh Nguyen [*] , Viet Nguyen [*] , Trung Dao, Khoi Nguyen, Cuong Pham, Toan Tran, and Anh Tran
<i>In International Conference on Computer Vision, 2025</i>
QUALCOMM |