Zeqi Gu | Curriculum Vitae

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Education

- **Cornell Tech, Cornell University**   **New York, NY**

Ph.D. candidate in Computer Science   *2021 – 12/2025 (Expected)*

M.S. awarded in 2024

Committee: Prof. Abe Davis, Prof. Noah Snavely, Prof. Deborah Estrin

- **Cornell University**   **Ithaca, NY**

B.S. (Honors)   *2016 – 2020*

Double Major: Computer Science, Mathematics

Advisor: Prof. Serge Belongie

Skills

- **Generative AI & Training:** Diffusion, multimodal foundation model, RLHF (SFT, GRPO, reward modeling)
- **Computer Vision & Graphics:** Computational photography, animation, matting, adversarial attack
- **Frameworks & Tooling**: Pytorch, HuggingFace TRL, verl, Blender, Adobe Creative Suite (Photoshop, Premiere, After Effects, Illustrator)

Selected Publications (*: Equal Contribution)

- **Zeqi Gu**, Yin Cui, Max Li, Fangyin Wei, Yunhao Ge, Jinwei Gu, Ming-Yu Liu, Abe Davis, Yifan Ding, *ArtiScene: Language-Driven Artistic 3D Scene Generation Through Image Intermediary*, CVPR 2025
- **Zeqi Gu**, Difan Liu, Timothy Langlois, Matthew Fisher, Abe Davis, *How to Train Your Dragon: Automatic Diffusion-Based Rigging for Characters with Diverse Topologies*, Eurographics 2025
- **Zeqi Gu***, Ethan Yang*, Abe Davis, *Filter-Guided Diffusion for Controllable Image Generation*, SIGGRAPH 2024
- **Zeqi Gu**, Wenqi Xian, Noah Snavely, Abe Davis, *FactorMatte: Redefining Video Matting for Re-Composition Tasks*, SIGGRAPH 2023
- Jan Ondras, Di Ni, Xi Deng, **Zeqi Gu**, Henry Zheng, *Robotic Dough Shaping*, ICCAS 2022 (Oral)
- Qian Huang*, Isay Katsman*, Horace He*, **Zeqi Gu***, Serge Belongie, Ser-Nam Lim, *Enhancing Adversarial Example Transferability with an Intermediate Level Attack*, ICCV 2019
- Yin Cui*, **Zeqi Gu***, Dhruv Mahajan, Laurens van der Maaten, Serge Belongie, Ser-Nam Lim, *Measuring Dataset Granularity*, arXiv 2019

Work Experience

- **Research Scientist Intern @ Meta**   **Menlo Park, CA**

                    05/2025 – Present

Enabled concise Chain-of-Thought reasoning capabilities of autoregressive multimodal foundation models for the task of text-to-image generation. Developed RL algorithms to post-train Janus-Pro, successfully reducing CoT length by 50+%, while preserving image aesthetics and achieving better text alignment on GenEval and T2I-CompBench. Paper submitted to ICLR 2026.

- **Research Scientist Intern @ NVIDIA**   **Santa Clara, CA**

05/2024 – 01/2025

Built a text-to-3D scene generation pipeline leveraging LLMs and foundation models, supporting diverse scene categories and artistic styles. Modular 3D mesh outputs enable flexible downstream editing. Filed Patent 24-SC-0653US01: "Text-Image-OpenUSD Scene Generation" (1R2674.051201).

- **Research Assistant @ Cornell University**   **Ithaca, NY**

01/2024 – 05/2025

With the Gore Lab at College of Agriculture and Life Sciences, leveraged neural networks on multimodal aerial and ground sensor data to predict key maize traits such as stalk strength and growth patterns. Author of 3 publications on 67th Annual Maize Genetics Meeting 2025.

- **Research Scientist Intern @ Adobe Inc.**   **San Francisco, CA**

05/2023 – 12/2023

Pioneered cartoon animation of 2D characters with arbitrary topologies, arbitrary-styled textures with pose-conditioned diffusion models. Procedurally generated the first large-scale cartoon video dataset of 120k+ frames with accurate keypoint annotations via Adobe Character Animator.

- **Research Assistant @ Stanford University**   **Palo Alto, CA (Remote)**

06/2020 – 11/2020

Used reinforcement active learning to enable a robot to conduct physics experiments to learn the underlying Granger causal graph and numerical relations between attributes such as weight, shape, friction, etc.

- **Research Assistant @ Cornell Graphics and Vision Group**   **Ithaca, NY**

09/2019 – 02/2020

Built the data annotation tool for the largest and most fine-grained ML fashion dataset at the time, consisting of 48k images across 294 attributes and their relationships. Paper and dataset published at ECCV 2020 (Oral).

- **Research Scientist Intern @ Adobe Inc.**   **San Jose, CA**

05/ 2019 – 11/2019

Built design recommendation system for Adobe software like Photoshop that suggests layout improvements based on user history for poster designers. Prototyped sidebar UI to preview recommendations in real time.

- **Software Engineer Intern @ Uber Advanced Technologies Group (ATG)**   **Pittsburgh, PA**

05/2018 – 08/2018

Implemented A/B testing pipeline and visualization tools for automatic map generation. Contributed production-ready C++ and front-end modules.

Awards

- *Rising Star in Computer Graphics*, Women in Graphics, 2025
- *Doctoral Consortium at Eurographics*, Eurographics Association, 2025
- *Dean's List*, Cornell University, Semesters during 2016-2020

Services

- **Reviewer:** SIGGRAPH (2025), CVPR (2025), ACM ToG (2024), ECCV (2024), ICCV (2023), AAAI (2023)
- **Teaching Assistant:** CS 5787 Deep Learning (Fall 2025), CS 4670 Intro to Computer Vision (Spring 2022), CS 6670 Graduate Computer Vision (Fall 2021)