

# KAIWEN ZHANG

✉ zkw21@mails.tsinghua.edu.cn · 📞 (+86) 135-5480-3878 · 🏠 Homepage · 🐦 @sze68zkw

## 🎓 EDUCATION

**Tsinghua University, Beijing, China**

Sep. 2021 - Present

*Bachelor student in Computer Science and Technology (3.95/4.0, Top 5%)*

## 📄 PUBLICATIONS / PREPRINTS

- **Kaiwen Zhang**, Yifan Zhou, Xudong Xu, Xingang Pan\* and Bo Dai.  
**DiffMorpher: Unleashing the Capability of Diffusion Models for Image Morphing** *ArXiv 2023*  
Project / ArXiv / Code / Huggingface Demo (\*Corresponding Author)

## 👥 WORKING EXPERIENCE

**Intelligent Digital Creation Group, Shanghai AI Lab**

Jul. 2023 - Present

*Research Intern* Primary Advisor: Prof. Xingang Pan @ NTU MMLab (Remotely)

- Conduct research on image morphing based on diffusion models.
- Design a video neural representation that can represent detailed image features and consistent motions over time.
- Propose novel algorithms to enhance rationality and smoothness in real image interpolations, which exhibit excellent performance that surpasses all existing methods.
- **Paper is submitted to CVPR as the first author.** This is the first time that diffusion models have been used to create natural and seamless morphing of real-world images, unlocking the great potential of diffusion models for this task.

**Knowledge Engineering Group, THU**

Sep. 2022 - Jun. 2023

*Research Assistant* Advisor: Prof. Jie Tang

- Design, implement and train a Variational Autoencoder specific to video data.
- Implement *Pix2Video: Video Editing using Image Diffusion* based on the Stable Diffusion model.
- Implement *Prompt-to-Prompt Image Editing with Cross-Attention Control* in the latent space.

**Student Association of Science and Technology, THU CST**

Aug. 2022 - Aug. 2023

*Core member*

- Serve as a summer training instructor for computer vision and generation models in AI track. Here is the website, the handout and the project designed by me.

## 📖 RELEVANT COURSEWORK

- |   |                                  |
|---|----------------------------------|
| • Fundamentals of Programming (A+)            | • Data Structures (A)            |
| • Introduction to Computer Systems (A+)       | • Programming Training (A)       |
| • Introduction to Artificial Intelligence (A) | • Calculus A I & II (A)          |
| • Fundamentals of Computer Graphics (A)       | • Linear Algebra (A)             |
| • Software Engineering (A)                    | • Probability and Statistics (A) |

## ♡ HONORS AND AWARDS

National Scholarship (**Highest Honor** for undergraduates in China, ~ **Top 0.2%**)

Oct. 2023

Second Prize (3 / 109), The Jittor AI Challenge (Image Generation Track)

Sept. 2023

Tsinghua University Comprehensive Excellence Scholarship (**Top 5%** undergraduates)

Oct. 2022

Meritorious Winner (Top 10%), American Mathematical Contest in Modeling

Mar. 2022