Yufan Deng

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Education

- **Hong Kong University of Science and Technology (HKUST)** 09/2021 - Present
  *BEng in **Computer Science**, Minor in **Mathematics*** *Hong Kong*
  - GPA: 4.19/4.30, Rank: 1 out of 136
  - Graduate-level Course: COMP5214 Advanced Deep Learning Architecture, COMP 5212 Machine Learning, COMP6211E Optimization for Machine Learning

- **Stanford University** 06/2024 - 09/2024
  Summer Research *Stanford, CA*

- **École Polytechnique Fédérale de Lausanne (EPFL)** 02/2024 - 06/2024
  Exchange *Lausanne, Switzerland*
  - GPA: 5.5/6.0
  - Graduate-level Course: CS552 Modern Natural Language Processing

- **Shenzhen Middle School** 09/2018 - 06/2021
  High School *Shenzhen, China*
  - GPA: 4.32/4.45

Publications

* DENOTES EQUAL CONTRIBUTION

[1] Yufan Deng*, Ruida Wang*, Yuhao Zhang*, Yu-Wing Tai, Chi-Keung Tang. **"DragVideo: Interactive Drag-style Video Editing"**. In: *European Conference on Computer Vision (ECCV)*. 2024.

[2] Yufan Deng*, Yuhao Zhang*, Chen Geng, Shangzhe Wu, Jiajun Wu. **"Anymate: A Dataset and Baselines for Learning 3D Object Rigging"**. Under Review: *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*. 2025.

Research Experience

- **Anymate: A Dataset and Baselines for Learning 3D Object Rigging** 06/2024 - 11/2024
  Stanford Vision and Learning Lab *Stanford, CA*
  Advisor: Prof. Jiajun Wu (Stanford), Prof. Shangzhe Wu (Cambridge)
  - Curated *Anymate Dataset*, a large-scale dataset of 178K 3D assets with rigging and skinning information—over 50 times larger than existing datasets.
  - Developed *Anymate Model*, a scalable transformer-based framework to learn auto-rigging from the large-scale dataset.
  - Significantly outperformed existing methods, achieved accurate bone skeletons and skinning weights for realistic animations, and submitted to CVPR2025.

- **DragVideo: Interactive Drag-style Video Editing** 06/2023 - 02/2024
  Hong Kong University of Science and Technology *Hong Kong*
  Advisor: Prof. Chi-Keung Tang (HKUST), Prof. Yu-Wing Tai (Dartmouth)
  - Proposed *DragVideo*, the first framework lifting the drag-style editing from 2D images to videos.
  - Addressed video quality issues by employing Low-Rank Adaptation (LoRA) and Mutual Self-Attention mechanism.
  - Developed a web UI, conducted analytical experiments, and published in ECCV2024.

Honors and Awards

- **HKSAR Government Scholarship** 09/2022 - 2025
- **Tin Ka Ping Scholarship (Exchange)** 05/2024
- **HKUST Alumni Endowment Fund High Flyers Program Scholarship** 09/2023
- **Tse Cheuk Ng Tai Scholarship** 08/2023
- **Dean's List** for 5/5 semester 01/2022-2024

Additional Relevant Experience

- **Research Assistant** 03/2024 - 06/2024
  Visual Intelligence Lab, HKUST *Remote*
  - Assisted in field survey for AI Generated Content project.
  - Experimented with various latest generative models for image, video, audio, and speech.
- **Teaching Assistant** 07/2023 - 08/2023
  COMP2211 (Exploring Artificial Intelligence), HKUST *Hong Kong*
  - Prepared three lab assignments for KMeans, MLP, and CNN.
- **Research Assistant** 06/2022 - 05/2023
  Smart Lab, HKUST *Hong Kong*
  - Assisted projects related to deep learning for medical images, specifically the fundus image.
  - Focused on synthetic data augmentation, quality-aware model, and multi-task model.

Course Projects

- **EduGPT - DPO is all you need** 02/2024 - 05/2024
  CS552 Modern Natural Language Processing Project at EPFL *Lausanne, Switzerland*
- **DiffAdv: Generating an Adversarial Example for Any Given Image Using Diffusion Models** 09/2023 - 12/2023
  COMP5212 Machine Learning Project at HKUST *Hong Kong*
- **Music Generation Conditioned on Emotion** 02/2023 - 06/2023
  COMP5214 Advanced Deep Learning Architecture Project at HKUST *Hong Kong*

Skills

- **Programming Languages:** Python (Skilled), Java (Skilled), C++ (Skilled), PHP (Basic), SQL (Basic), C (Basic)
- **Deep Learning Toolkits:** Pytorch, Hugging Face Libraries
- **Miscellaneous:** LaTeX, Linux, Git, Matlab, MS Office, Adobe

Additional Information

Languages: Mandarin (Native), English (Proficient)
Interests: Piano performance, Frisbee, Badminton