

Haoran MO

(Postdoctoral Researcher)

PERSONAL INFORMATION

INSTITUTION: Computational Media and Arts (CMA), Information Hub,
The Hong Kong University of Science and Technology (Guangzhou)
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RESEARCH INTERESTS

I work on deep learning based Computer Graphics and Computer Vision, particularly in:

- Sketch understanding and generation.
- Line drawing-based content generation (AIGC).
- 2D/3D animation.

EXPERIENCE

AUG 2024-NOW	Postdoctoral Researcher, The Hong Kong University of Science and Technology (Guangzhou)
MAY-JULY 2019	Research Intern, Waseda University , Tokyo, Japan
JULY-SPET 2017	Intern (Software Engineer), Huawei

EDUCATION

SEP 2020 - JUNE 2024	Ph.D. at Sun Yat-sen University , Guangzhou Major: Software Engineering Thesis: "Sketch Generation and Representation Based on Multi-Perspective Understanding"
SEP 2018 - JUNE 2020	Master of Science in ENGINEERING, Sun Yat-sen University , Guangzhou Major: Software Engineering Thesis: "Automatic Colorization of Scene Sketches Based on Deep Learning"
SEP 2014 - JUNE 2018	Bachelor Degree in ENGINEERING, Sun Yat-sen University , Guangzhou Major: Software Engineering Thesis: "Sketch Recognition and Semantic Segmentation Based on Neural Network"

PUBLICATIONS

1. **Haoran Mo**, Yulin Shen, Edgar Simo-Serra, and Zeyu Wang. DoodleAssist: Progressive Interactive Line Art Generation with Latent Distribution Alignment. *IEEE Transactions on Visualization and Computer Graphics* (TVCG), 2025.
2. **Haoran Mo**, Chengying Gao* and Ruomei Wang. Joint Stroke Tracing and Correspondence for 2D Animation. *ACM Transactions on Graphics* (Presented at SIGGRAPH 2024).
3. **Haoran Mo**, Edgar Simo-Serra, Chengying Gao*, Changqing Zou and Ruomei Wang. General Virtual Sketching Framework for Vector Line Art. *ACM Transactions on Graphics* (SIGGRAPH, Journal track), 2021.
4. Changqing Zou[†], **Haoran Mo**[†](equal contribution), Chengying Gao*, Ruofei Du and Hongbo Fu. Language-based Colorization of Scene Sketches. *ACM Transactions on Graphics* (SIGGRAPH Asia, Journal track), 2019.
5. **Haoran Mo**, Xusheng Lin, Chengying Gao* and Ruomei Wang. Text-based Vector Sketch Editing with Image Editing Diffusion Prior. *IEEE International Conference on Multimedia & Expo* (ICME), 2024.
6. Yatian Wang, **Haoran Mo** and Chengying Gao*. DiFusion: Flexible Stylized Motion Generation Using Digest-and-Fusion Scheme. *IEEE Transactions on Visualization and Computer Graphics* (TVCG), 2025.
7. Zhuo Xie, **Haoran Mo** and Chengying Gao*. Video-Driven Sketch Animation via Cyclic Reconstruction Mechanism. *IEEE International Conference on Multimedia & Expo* (ICME), 2024.
8. Xinru Liang, **Haoran Mo** and Chengying Gao*. Controllable Garment Image Synthesis Integrated with Frequency Domain Features. *Computer Graphics Forum* (Pacific Graphics, Journal track), 2023.
9. Peng Ling, **Haoran Mo** and Chengying Gao*. Multi-instance Referring Image Segmentation of Scene Sketches based on Global Reference Mechanism. *Pacific Graphics*, 2022.
10. Yue Huang, **Haoran Mo**, Xiao Liang and Chengying Gao*. Unpaired Motion Style Transfer with Motion-oriented Projection Flow Network. *IEEE International Conference on Multimedia & Expo* (ICME), 2022.
11. Ruizhi Cao, **Haoran Mo** and Chengying Gao*. Line Art Colorization Based on Explicit Region Segmentation. *Computer Graphics Forum* (Pacific Graphics, Journal track), 2021.
12. Changqing Zou[†], Qian Yu[†], Ruofei Du, **Haoran Mo**, Yi-Zhe Song, Tao Xiang, Chengying Gao, Baoquan Chen* and Hao Zhang. SketchyScene: Richly-Annotated Scene Sketches. *European Conference on Computer Vision* (ECCV), 2018.

AWARDS

- CAD & CG Excellent Student Award, 2021.
- 4399 Cup - Game Development Competition, Winning Prize (Top 6), 2016.

ACADEMIC SERVICE

- Program committee: SIGGRAPH Asia '25 (Technical Communications and Posters).
- Reviewer for conferences: ACM SIGGRAPH, ACM SIGGRAPH Asia, ACM MM, EuroGraphics (EG), Pacific Graphics (PG).
- Reviewer for journals: ACM TOG, CGF, IEEE TCSVT.