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) and 2D 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**, Chengying Gao* and Ruomei Wang. Joint Stroke Tracing and Correspondence for 2D Animation. *ACM Transactions on Graphics* (Presented at SIGGRAPH 2024).

2. **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.

3. 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.

4. **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.

5. Zhuo Xie, **Haoran Mo** and Chengying Gao[*]. Video-Driven Sketch Animation via Cyclic Reconstruction Mechanism. *IEEE International Conference on Multimedia & Expo* (ICME), 2024.

6. Xinru Liang, **Haoran Mo** and Chengying Gao[*]. Controllable Garment Image Synthesis Integrated with Frequency Domain Features. *Computer Graphics Forum* (Pacific Graphics, Journal track), 2023.

7. Peng Ling, **Haoran Mo** and Chengying Gao[*]. Multi-instance Referring Image Segmentation of Scene Sketches based on Global Reference Mechanism. *Pacific Graphics*, 2022.

8. 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.

9. Ruizhi Cao, **Haoran Mo** and Chengying Gao[*]. Line Art Colorization Based on Explicit Region Segmentation. *Computer Graphics Forum* (Pacific Graphics, Journal track), 2021.

10. 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

- Reviewer for conferences: SIGGRAPH, SIGGRAPH Asia, EuroGraphics(EG), Pacific Graphics(PG), GMP.
- Reviewer for journals: TOG, CGF.