

Haoran MO

PERSONAL INFORMATION

INSTITUTION: School of Computer Science and Engineering, Sun Yat-sen University
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HOMEPAGE: <https://mo-haoran.com>
GITHUB: <https://github.com/MarkMoHR>

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.

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.

OTHER EXPERIENCE

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| MAY-JULY 2019 | Research Intern, Waseda University , Tokyo, Japan
Adviser: Prof. Edgar SIMO-SERRA
Research on sketch generation and simplification. |
| JULY-SPET 2017 | Intern, Huawei
Role: Software Engineer |

TALKS

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| AUG 2021 | “General Virtual Sketching Framework for Vector Line Art”
<i>SIGGRAPH 2021 (virtual)</i> |
| MAY 2021 | “General Virtual Sketching Framework for Vector Line Art”
<i>CAD/Graphics 2021 (Xi’an, China)</i> |
| NOV 2019 | “Language-based Colorization of Scene Sketches”
<i>SIGGRAPH Asia 2019 (Brisbane, Australia)</i> |

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.