

Rui Yang

LECTURER · COMPUTER SCIENCE RESEARCHER

Department of Artificial Intelligence, School of Computer Science and Technology, Huaqiao University

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Education

Shaanxi Normal University

Xi'an, China

PH.D. IN COMPUTER SCIENCE AND TECHNOLOGY

Sept. 2021 - June 2025

- Supervisor: Prof. Xiaojun Wu.
- Research Direction: Image Processing, Pattern Recognition.

Muroran Institute of Technology

Japan

JOINT PH.D. STUDENT

Sept. 2023 - Oct. 2024

- Supervisor: Prof. Mianxiong Dong.
- Funded by China Scholarship Council (CSC).

Xi'an Jiaotong University

Xi'an, China

M.S. IN COMPUTER TECHNOLOGY

Sept. 2016 - Dec. 2019

- Supervisor: Prof. Ming Xiang.

Ningxia Medical University

Yinchuan, China

B.S. IN ELECTRONIC INFORMATION SCIENCE AND TECHNOLOGY

Sept. 2008 - July 2012

- Major: Medical Information.

Publications

- [1] Huining Li, Bangzhen Liu, Rui Yang, Yang Zhou, Chenshu Xu, Xufang Pang, and Shengfeng He, "Videosketcher: A training-free approach for coherent video sketch transfer," in *Winter Conference on Applications of Computer Vision (WACV)*, CCF C, 2026, pp. 7333–7343.
- [2] Rui Yang, Huining Li, Yiyi Long, Xiaojun Wu, and Shengfeng He, "Stroke2sketch: Harnessing stroke attributes for training-free sketch extraction," in *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)*, CCF A, 2025, pp. 16 545–16 554.
- [3] Rui Yang, Kaoru Ota, Mianxiong Dong, and Xiaojun Wu, "Semantic layout-guided diffusion model for high-fidelity image synthesis in 'the thousand li of rivers and mountains,'" *Expert Systems with Applications*, vol. 263, p. 125 645, 2025, SCI Q1 Top. doi: 10. 1016/j. eswa. 2024. 125645.
- [4] Rui Yang, Xiaojun Wu, and Shengfeng He, "Mixsa: Training-free reference-based sketch extraction via mixture-of-self-attention," *IEEE Transactions on Visualization and Computer Graphics*, vol. 31, no. 9, pp. 6208–6222, Sep. 2025, SCI Q1 Top, CCF A. doi: 10. 1109/TVCG. 2024. 3502395.
- [5] Rui Yang, Honghong Yang, Li Zhao, Qin Lei, Mianxiong Dong, Kaoru Ota, and Xiaojun Wu, "One-shot reference-based structure-aware image to sketch synthesis," in *Proceedings of the AAAI Conference on Artificial Intelligence*, CCF A, vol. 39, 2025, pp. 9238–9246. doi: 10. 1609/aaai. v39i9. 33000.
- [6] Ru Jia, Li Zhao, Rui Yang, Honghong Yang, Xiaojun Wu, Yumei Zhang, Peng Li, and Yuping Su, "Hfa-gtnet: Hierarchical fusion adaptive graph transformer network for dance action recognition," *Journal of Visual Communication and Image Representation*, vol. 98, p. 104 038, 2024, SCI Q4, CCF C. doi: 10. 1016/j. jvcir. 2023. 104038.
- [7] Qin Lei, Rui Yang, Jiang Zhong, Rongzhen Li, Muiyang He, Mianxiong Dong, and Kaoru Ota, "Expanding crack segmentation dataset with crack growth simulation and feature space diversity," in *2024 IEEE International Conference on Multimedia and Expo (ICME)*, CCF B, 2024, pp. 1–6. doi: 10. 1109/ICME57554. 2024. 10688181.
- [8] Rui Yang, Honghong Yang, Min Zhao, Ru Jia, Xiaojun Wu, and Yumei Zhang, "Special perceptual parsing for chinese landscape painting scene understanding: A semantic segmentation approach," *Neural Computing and Applications*, vol. 36, no. 10, pp. 5231–5249, 2024, SCI Q3. doi: 10. 1007/s00521–023–09343–w.

Experience

Huaqiao University

LECTURER

- Department of Artificial Intelligence.

Xiamen, China

June 2025 - Present

Waseda University

RESEARCH ASSISTANT / PH.D. STUDENT

- Member of Intelligent Perception and Advanced Computing (ISAC) Center.
- Participated in National Key R&D Program and National Natural Science Foundation projects.

Tokyo, Japan

Oct. 2024 - Nov. 2024

Research Projects

National Key R&D Program of China (2017YFB1402100)

Ministry of Science and Technology

PARTICIPANT

- Integration and Application Demonstration of Technology for Inheritance and Development of Ethnic Folk Cultural Resources.

National Natural Science Foundation of China (62377034)

NSFC

PARTICIPANT (3RD)

- Key Technologies for Constructing Cultural Teaching Contexts Based on Artificial Intelligence.
- Contributed to 3 papers and 2 patents.

National Natural Science Foundation International (Regional) Cooperation and Exchange Project (1202021475)

NSFC

PARTICIPANT

- Art and Technology. Exchange project with Hong Kong Baptist University.

Xi'an Artificial Intelligence Special Project

Xi'an Municipal Government

PARTICIPANT (3RD)

- Key Technologies for Constructing Cultural Teaching Contexts Based on Artificial Intelligence.

Honors & Awards

2021-2024 **First Prize Scholarship**, Shaanxi Normal University (Multiple times)

Xi'an, China

2025 **Outstanding Ph.D. Graduate**, Shaanxi Normal University

Xi'an, China

Second Prize, Provincial Informatization Teaching Competition

China

Third Prize (1st Instructor), "Challenge Cup" National College Student Innovation Competition

China

Second Prize, Municipal Teaching Reform Project Outcome

China

Academic Activities

Academic Collaborations

Global

VISITING RESEARCHER / EXCHANGE STUDENT

2021 - Present

- Visiting Student at Hong Kong Baptist University (HKBU) for research exchange on Art and Technology.
- Joint Research with Intelligent Perception and Advanced Computing (ISAC) Center, SNNU.
- Research collaboration with Emerging Networks and Systems Laboratory (ENeS), Muroran Institute of Technology, Japan.
- Research collaboration with Visual Understanding and Generation Laboratory (VUG), Singapore Management University.

Skills

Research Interests Image Processing, Pattern Recognition, Computer Vision, Machine Learning, AI for Art/Culture

Programming Python, PyTorch, MATLAB, C/C++, \LaTeX

Languages Chinese (Native), English (Proficient)