

XINRUI WANG

E-mail ◊ Github ◊ Google Scholar

EDUCATIONAL BACKGROUND

The University of Tokyo, Ph.D in Machine Learning, Matsuo lab	Oct. 2023 – Sep. 2026 (expected)
The University of Tokyo, Master in Machine Learning, Matsuo lab	Oct. 2016 – Aug. 2018
University of Science and Technology of China, Bachelor in Mech. Eng	Aug. 2012 – Jun. 2016

ACADEMIC PUBLICATIONS

- *Dingkun Yan, ***Xinrui Wang**, Suguru Saito, Yusuke Iwasawa, Yutaka Matsuo, Jiaxian Guo. *Enhancing Reference-based Sketch Colorization Through Separating Representations*. **Arxiv**. (*: equal contribution)
- *Dingkun Yan, ***Xinrui Wang**, *Ru Wang, Jinze Yu, Yusuke Iwasawa, Yutaka Matsuo, Jiaxian Guo. *Towards High-resolution and Disentangled Reference-based Sketch Colorization*. **CVPR 2026**. (*: equal contribution)
- Xinrui Wang**, Zilin Guo, Zhuoru Li, Heng Zhang, Yusuke Iwasawa, Yutaka Matsuo, Jiaxian Guo. *One-shot Portrait Stylization Via Geometric Alignment*. **WACV 2026**.
- Xinrui Wang**, Zhuoru Li, Xuanyu Yin, Xiao Zhou, Yusuke Iwasawa, Yutaka Matsuo, Jiaxian Guo. *Real-Time Data-efficient Portrait Stylization via Geometric Alignment*. **Neural Networks 2025**.
- *Dingkun Yan, ***Xinrui Wang**, Zhuoru Li, Suguru Saito, Yusuke Iwasawa, Yutaka Matsuo, Jiaxian Guo. *Image Referenced Sketch Colorization Based on Animation Creation Workflow*. **CVPR 2025**. (*: equal contribution)
- Zeke Xie, **Xinrui Wang**, Huishui Zhang, Issei Sato, Masashi Sugiyama. *Separating the Effect of Adaptive Learning Rate and Momentum Inertia*. **ICML 2022**.
- Lvmin Zhang, **Xinrui Wang**, Qingnan Fan, Yi Ji, Chunping Liu. *Generating Manga from Illustrations via Mimicking Manga Workflow*. **CVPR 2021**.
- Xinrui Wang**, Jinze Yu. *Learning to Cartoonize Using White-Box Cartoon Representations*. **CVPR 2020**.

FULL TIME WORK EXPERIENCES

SoftBank Group, Stuff Machine Learning Engineer & Deputy Director Apr. 2025 – Mar. 2026

- Work as director level engineer and developed multiple internal AI & CV based functions.

Japan Computer Vision, Stuff Machine Learning Engineer Aug. 2022 – Mar. 2025

- Subsidiary of SoftBank group, focusing on face recognition. Built a face-recognition system from scratch.
- Collected and cleaned a dataset of ~2.5M IDs and 70M images, optimized models and vector matching algorithm.
- Overall performance outperformed Sensetime Anysee in multiple benchmarks.

Tencent, Senior Machine Learning Engineer Aug. 2020 – May. 2022

- Worked for WeChat group to develop functions for WeChat, an IM application with 1.2 billion DAU worldwide.
- Developed face segmentation for auto makeup, achieved 95% mIoU and 300 FPS on smartphone.
- Developed a GAN framework for facial editing (style transfer, age changing and faceswap) on smartphone.
- Developed old photos for children's day and video-drive image animation on smartphone.

ByteDance, Machine Learning Engineer Jan. 2019 – Jul. 2020

- Worked in ByteDance AI Lab to develop algorithm for Douyin & TikTok, with 1.5 Billion DAU worldwide.
- Developed Super Resolution and HDR algorithms for smartphones, achieved 38+ PSNR.
- Developed CNN based algorithms for face changing as a main contributor, runs real-time on smartphone.
- Deeply involved in model training, quantization, mobile inference engine and deployment.

SKILLSETS

Pytorch, Tensorflow, Docker, Git, Generative Models (GAN, Diffusion), Distributed Training, Mobile Optimization
Model experiences: SD(SD1-3, SDXL, SVD), FLUX, Qwen Image, QwenImageEdit, ZImage, WAN, WAN-Animate