

Zhenyu Xie

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RESEARCH INTERESTS

My research interests mainly lie in the **Human-centric Synthesis**, including but not limited to 2D/3D virtual try-on, 2D/3D-aware human synthesis/editing, and cross-modal human motion synthesis, etc. Recently, I am focusing on exploring the generative potential of diffusion model for the tasks of 3D virtual try-on. My research goal is to empower the computer presenting the real world like a professional designer.

EDUCATION

- | | |
|---|----------------------------|
| Sun Yat-sen University, Shenzhen China
Ph.D. candidate in School of Intelligent Systems Engineering
Advisor: Prof. Xiandan Liang | September 2020 - Present |
| Sun Yat-sen University, Guangzhou China
M.S. in School of Computer Science and Engineering
Advisor: Prof. Jianhuang Lai | September 2018 - June 2020 |
| Sun Yat-sen University, Guangzhou China
B.S. in School of Computer Science and Engineering
Advisor: Prof. Xiaohua Xie | September 2014 - June 2018 |

SELECTED PUBLICATIONS

- [1] Zhenyu Xie, Zaiyu Huang, Xin Dong, Fuwei Zhao, Haoye Dong, Xijin Zhang, Feida Zhu, and Xiaodan Liang. GP-VTON: Towards General Purpose Virtual Try-on via Collaborative Local-Flow Global-Parsing, in **CVPR** 2023. [\[PDF\]](#) [\[Code\]](#)
- [2] Zaiyu Huang, Hanhui Li, Zhenyu Xie, Michael Kampffmeyer, Qingling Cai, Xiaodan Liang. Towards Hard-pose Virtual Try-on via 3D-aware Global Correspondence Learning, in **NeurIPS** 2022. [\[PDF\]](#) [\[Code\]](#)
- [3] Xujie Zhang, Yu Sha, Michael Kampffmeyer, Zhenyu Xie, Zequn Jie, Chengwen Huang, Jianqing Peng, Xiaodan Liang. ARMANI: Part-level Garment-Text Alignment for Unified Cross-Modal Fashion Design, in **ACMMM** 2022. [\[PDF\]](#)
- [4] Xin Dong, Fuwei Zhao, Zhenyu Xie, Xijin Zhang, Kang Du, Min Zheng, Xiang Long, Xiaodan Liang, Jianchao Yang. Dressing in the Wild by Watching Dance Videos, in **CVPR** 2022. [\[PDF\]](#) [\[Project\]](#)
- [5] Zhenyu Xie, Zaiyu Huang, Fuwei Zhao, Haoye Dong, Michael Kampffmeyer, Xiaodan Liang. Towards Scalable Unpaired Virtual Try-On via Patch-Routed Spatially-Adaptive GAN, in **NuerIPS** 2021. [\[PDF\]](#) [\[Code\]](#)
- [6] Fuwei Zhao, Zhenyu Xie, Michael Kampffmeyer, Haoye Dong, Songfang Han, Tianxiang Zheng, Tao Zhang, Xiaodan Liang. M3D-VTON: A Monocular-to-3D Virtual Try-On Network, in **ICCV** 2021. [\[PDF\]](#) [\[Code\]](#)
- [7] Zhenyu Xie, Xujie Zhang, Fuwei Zhao, Haoye Dong, Michael Kampffmeyer, Haonan Yan, Xiaodan Liang. WAS-VTON: Warping Architecture Search for Virtual Try-on Network, in **ACMMM** 2021. [\[PDF\]](#)
- [8] Bowen Wu, Zhenyu Xie, Xiaodan Liang, Yubei Xiao, Haoye Dong, Liang Lin. Image Comes Dancing with Collaborative Parsing-Flow Video Synthesis, in **TIP** 2021. [\[PDF\]](#)
- [9] Haoye Dong, Xiaodan Liang, Yixuan Zhang, Xujie Zhang, Xiaohui Shen, Zhenyu Xie, Bowen Wu, Jian Yin. Fashion Editing with Adversarial Parsing Learning, in **CVPR** 2020. [\[PDF\]](#)

ACADEMIC SERVICES

Organizer for CVPR 2020 Workshop on Human-centric Image/Video Synthesis. [L.I.P](#)

Conference Reviewer: ICCV2021, CVPR2022, ECCV2022, CVPR2023, ICCV2023, NeurIPS2023

Journal Reviewer: IEEE Transactions on Pattern Analysis and Machine Intelligence

Teaching Assistant for Artificial Intelligence Experiment (2020-2021), Sun Yat-sen University

INVITED TALKS

VALSE Webniar, Online

January 2022

A talk about scalable unpaired virtual try-on. [Video Recording](#)