Wentao Jiang

Homepage: wtjiang98.github.io

Github: github.com/wtjiang98

Mobile (WeChat): +86 186-1170-3095

Email: jiangwentao@buaa.edu.cn

EDUCATION

- **Beihang University** — Beijing, China
  Ph.D. in Artificial Intelligence, supervised by Prof. Si Liu — Sep. 2020 - June 2024 (Expected)

- **Beihang University** — Beijing, China
  M.Phil. in Computer Science, supervised by Prof. Si Liu — Sep. 2019 - June 2020

- **Harbin Engineering University** — Harbin, China
  B.Eng. in Software Engineering; GPA: 91/100 (Top 2%) — Sep. 2015 - June 2019

EXPERIENCE AND PROJECTS

- **SenseTime Research** — Beijing, China
  Research Intern, supervised by Mr. Sheng Jin — July 2021 - Mar. 2022
  - Studied the data augmentation method for 2D human pose estimation. The method improves the pose estimation accuracy by approximately 1.0 AP in the MS-COCO dataset without increasing the training time.
  - Proposed a data augmentation method, termed PoseTrans (submitted to *ECCV* 2022). A Pose Transformation Module (PTM) is devised to perform affine transformations on human limbs to obtain new poses and increase the diversity of training samples. A Pose Clustering Module (PCM) is adopted to cluster human pose and a long-tailed distribution is observed for the dataset. PCM is used to determine the rarity of human poses and combined with the PTM to generate more long-tailed poses to further improve accuracy.

- **Adobe Research** — Beijing, China (Remote)
  Collaborative Researcher, supervised by Dr. Ning Xu and Dr. Zhe Lin — Sep. 2020 - Mar. 2021
  - Explored a new task: automatically edit photos via linguistic requests (e.g., "Increase the brightness a lot")
  - Proposed CAGAN (*ICCV* 2021) with a newly designed cross-modal cyclic mechanism and augmentation strategy for language-guided global image editing, which mitigates the problem of insufficient and unbalanced data. we also proposed a new metric (RSS) to evaluate the performance of editing, which uses a speaker model to redescribe the input-output image pair.

- **SenseTime Research** — Beijing, China
  Research Intern, supervised by Dr. Wayne Wu — June 2020 - Sep. 2020
  - Worked on robust makeup transfer algorithm for high-resolution images, aiming at bringing makeup transfer method to mobile apps. Collected a high-resolution dataset for makeup transfer.

- **Beihang University** — Beijing, China
  Research Assistant, supervised by Prof. Si Liu — Aug. 2018 - present
  - Worked on conditional image synthesis tasks, including makeup transfer and image-to-image translation
  - Proposed PSGAN (*CVPR* 2020 Oral) to achieve shade-controllable, partial, and robust makeup transfer. It utilizes Makeup Distill Network to disentangle the makeup of the reference image as two spatial-aware makeup matrices. An Attentive Makeup Morphing module is introduced to specify how the makeup of a pixel in the source image is morphed from the reference image. My Github Repo receive over **540** stars and **110** forks.
  - Proposed PSGAN++ (*TPAMI* 2021), which is capable of performing both detail-preserving makeup transfer and effective makeup removal. A Loss function for detail-preserving (highlights and blush) makeup transfer is also proposed.

SELECTED PUBLICATIONS

- Wentao Jiang, Sheng Jin, Wentao Liu, Chen Qian, Ping Luo, Si Liu, "**PoseTrans: A Simple Yet Effective Pose Transformation Augmentation for Human Pose Estimation**", submitted to *ECCV* 2022

- Wentao Jiang, Ning Xu, Jiayun Wang, Chen Gao, Jing Shi, Zhe Lin, Si Liu, "**Language-Guided Global Image Editing via Cross-Modal Cyclic Mechanism**", *IEEE International Conference on Computer Vision (ICCV)* 2021

- Si Liu, Wentao Jiang, Chen Gao, Ran He, Jiashi Feng, Bo Li, Shuicheng Yan, "**PSGAN++: Robust Detail-Preserving Makeup Transfer and Removal**", *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)* 2021

- Wentao Jiang, Si Liu, Chen Gao, Jie Cao, Ran He, Jiashi Feng, Shuicheng Yan, "**PSGAN: Pose and Expression Robust Spatial-Aware GAN for Customizable Makeup Transfer**", *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)* 2020, Oral Presentation

- Wentao Jiang, Si Liu, Chen Gao, Ran He, Bo Li, and Shuicheng Yan, "**Beautify As You Like**", *ACM International Conference on Multimedia (ACM MM)* 2020, Demo Paper

- Defa Zhu, Si Liu, Wentao Jiang, Chen Gao, Tianyi Wu, Qiangchang Wang, Guodong Guo, "**UGAN: Untraceable GAN for Multi-Domain Face Translation**", *arXiv preprint arXiv:1907.11418, 2019*

Honors and Awards

- **National Scholarship (Top 1%)**,   Ministry of Education of the People's Republic of China, 2021
- **Outstanding Freshman Scholarship for PhD Student (Top 5%)**,   Beihang University, 2020
- **Outstanding Freshman Scholarship for Master Student (Top 5%)**,   Beihang University, 2019
- **Outstanding Graduates (Top 2%)**,   Harbin Engineering University, 2019
- **Merit Student (Top 1%)**,   Heilongjiang Province, 2019
- **National Scholarship (Top 1%)**,   Ministry of Education of the People's Republic of China, 2017
- **Silver Medal**,   ACM-International Collegiate Programming Contest (ICPC) Asia Regional Contest, 2017
- **Silver Medal × 3**,   China Collegiate Programming Contest (CCPC) Regional Contest, 2016 - 2017