Jingyuan Liu

Computer vision & graphics and HCI

Email：jliucb@outlook.com
Homepage: https://liu-jingyuan.github.io/

I am dedicated to integrating interdisciplinary techniques from computer vision, computer graphics, and human-computer interaction to develop intelligent tools that enhance algorithms and foster user creativity.
My research is centered on two key areas of human-centric innovation:

- **Intelligent Graphical User Interfaces**: Leveraging human factors to overcome inherent limitations in automatic algorithms, such as controllability and accuracy.
- **Human Modeling**: Capturing and understanding human behaviors from videos to achieve practical accuracy, thereby supporting human-computer interaction in real-world, dynamic environments.

Education

2017.9-2022.6 **PhD in Computer Science and Engineering**
Hong Kong University of Science and Technology
Research interest: user interface design, modeling humans in videos
Supervisor: Professor Chiew-Lan Tai [taicl@cse.ust.hk]

2014.9-2017.3 **MPhil in Pattern Recognition and Machine Learning**
School of Astronautics, Beijing University of Aeronautics and Astronautics
GPA: 3.9/4.0
Supervisor: Dr. Bindang Xue [xuebd@buaa.edu.cn]

2010.9-2014.7 **BEng in Measuring and Controlling Technology and Instrument Specialty**
BA in English Literature (Dual Degree)
University of Science and Technology Beijing

Experiences

2025.6-current **Postdoctoral Research Fellow @ The University of Hong Kong**
Research topic: interactive character animation.

2024.12-2025.2 **Visiting Researcher @ MBZUAI**
Research topic: video editing and virtual try-on.

2024.4-2025.4 **Project Assistant Professor @ The University of Tokyo**

2022.10-2024.3 **Project Researcher @ The University of Tokyo**
Research topic: Human-in-the-Loop AI and virtual try-on.

2021.3-2022.3 **(Remote) Internship @ Adobe Research**
Led a research project on sports pose data analytics.

2020.12-2021.3 **Visiting student @ CUHK MMLab**
Assisted research on scene-aware human motion synthesis

2016.9-2016.12 **Internship @ Sony China Research Lab**
Assisted research on applying one-shot learning to hand gesture recognition.

2012.9-2012.11 **Internship @ Tsinghua University State Key Lab of Tribology**
Assisted with printed circuit boards assembly for multi-frequency instrument analysis.

Publications

[1] **Jingyuan Liu**, Zaiqiang Wu, Yechen Li, Takeo Igarashi. “Capturing Size-aware Draping via Per-Garment 2D Try-On.” Siggraph Asia 2025 Poster.
[2] Zaiqiang Wu, Yechen Li, **Jingyuan Liu**, Yuki Shibata, Takayuki Hori, I-Chao Shen, Takeo Igarashi. “Low-Barrier Dataset Collection with Real Human Body for Interactive Per-Garment Virtual Try-On.” In IEEE Computer Graphics and Applications.
[3] **Jingyuan Liu**, Li-Yi Wei, Ariel Shamir, Takeo Igarashi. "*iPose*: Interactive Human Pose Reconstruction from Video." In CHI2024.
[4] Zaiqiang Wu*, **Jingyuan Liu*** (joint first author), Toby Chong, I-Chao Shen, Takeo Igarashi. Virtual Measurement Garment for Per-Garment Virtual Try-On. In Graphical Interface 2024.
[5] **Jingyuan Liu**, Nazmus Saquib, Zhutian Chen, Rubaiat Habib Kazi, Li-Yi Wei, Hongbo Fu, Chiew-Lan Tai. "*PoseCoach*: A Customizable Visualization and Analysis System for Video-based Running Coaching." In TVCG2022.
[6] Jingbo Wang, Yu Rong, **Jingyuan Liu**, Sijie Yan, Dahua Lin, Bo Dai. "Towards Diverse and Natural Scene-aware 3D Human Motion Synthesis." CVPR2022.
[7] **Jingyuan Liu**, Mingyi Shi, Qifeng Chen, Hongbo Fu, Chiew-Lan Tai. "Normalized Human Pose Features for Human Action Video Alignment." ICCV2021 (Oral).
[8] **Jingyuan Liu**, Hongbo Fu, Chiew-Lan Tai. "*PoseTween*: Pose-driven Tween Animation." In UIST2020.
[9] **Jingyuan Liu**, Xuren Zhou, Hongbo Fu, Chiew-Lan Tai. "*TAVE*: template-based augmentation of visual effects to human actions in videos." Proceedings of the 26th Pacific Conference on Computer Graphics and Applications: Posters. Eurographics Association, 2018.
[10] **Jingyuan Liu**, Bindang Xue, Linyan Cui. "Analysis of statistical properties of atmospheric turbulence-induced image dancing based on Hilbert transform and dense optical flow." 2016 IEEE 13th International Conference on Signal Processing (ICSP). IEEE, 2016.

Awards

2021 Nomination for the Professor Samuel Chanson Best Teaching Assistant Awards
2017 HKUST Research Postgraduate Studentship
2015 National Postgraduate Scholarship
2013 Champion of Worldwide Freescale Cup Intelligent Car Race
2013 ARM Special Award
2013 2nd Runner-up in National Undergraduate Electronic Design Contest (Beijing Division)
2012 1st Runner-up in Mathematical Contest in Modeling
2011 1st Runner-up in National English Contest for College Students

Teaching

2018.9-2021.6 Teaching Assistant @ HKUST

COMP2711 Discrete Mathematical for Computer Science	2018Spring, 2019Fall
COMP2611 Computer Organization	2020Spring, 2021Spring