

# Jingyuan Liu

Computer Vision & Graphics and HCI

Email: jliuch@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 customizable 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." Pacific Graphics 2018 Poster.
- [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." IEEE International Conference on Signal Processing 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