

# Leyi Wu 吴乐毅

Year4 Undergraduate Student | Computer Vision, Generative Models, Embodied AI

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## PROFILE

Fourth-year undergraduate student at HKUST(GZ) majoring in Artificial Intelligence with research experience across video generation, 3D generation, rendering, VLM reasoning, and embodied AI. Co-author of works accepted to **CVPR 2025**, **ICLR 2025**, and **ECCV 2026**; ICPC Asia-East Continent Final gold medalist and EgoCross Challenge dual-track champion.

## EDUCATION

**The Hong Kong University of Science and Technology (Guangzhou)** Aug. 2023 - Present  
B.Eng. in Artificial Intelligence

- GPA: **3.7 / 4.3**

## RESEARCH FOCUS

Video Generation

3D Generation

Texture Synthesis

VLM Reasoning

Embodied AI

Robotics Control

## SELECTED IMPACT

- 4** papers accepted at top-tier venues: CVPR, ICLR, and ECCV.
- 5** ICPC/CCPC medals across Asia-level and national contests.
- 1st** Dual-track global champion of the 1st Cross-Domain EgoCross Challenge at CVPR 2026; team leader of an all-undergraduate team.
- 1** 2025 National Scholarship recipient, the only university-wide annual slot.
- 10** 2026 Litchi Innovation Talent Scholarship recipient, selected from 10 university-wide annual slots.

## RESEARCH EXPERIENCE

**Undergraduate Researcher, Prof. Ying-Cong Chen's Lab** 2024 - Present  
Generative models for controllable video, 3D assets, rendering, and visual understanding

- Contribute to diffusion-based rendering, 3D/texture generation, controllable video generation, video-model evaluation, and mechanistic analysis of video generation as world models.

**Research Intern, KnowinAI** Sep. 2025 - Present  
Robotic garment folding under complex dynamic visual interference

- Led a real-world robotic folding system under dynamic screen backgrounds and complex colored lighting, integrating visual perception with manipulation control.
- Validated stable folding of short- and long-sleeve garments in high-interference scenes; prepared the system for public demonstration at FAIR Plus robotics event.

## SELECTED PUBLICATIONS

**STANCE: Motion Coherent Video Generation Via Sparse-to-Dense Anchored Encoding**

**ECCV 2026** | Zhifei Chen\*, Tianshuo Xu\*, **Leyi Wu\***, Luozhou Wang, Dongyu Yan, Zihan You, Wenting Luo, Guo Zhang, Yingcong Chen†.

**RoboStressBench: Benchmarking VLM Robustness to Physical Visual Stress in Embodied Scenes**

**Under Review** | **Leyi Wu\***, Yifan Zhao\*, Jinjie Zhang\*, Suzeyu Chen\*, Wosong Chen, Zhifei Chen, Tianshuo Xu, Qingchun He, Hongxin Hu, Haojian Huang, Yangkai Wei, Wenqian Li, Yinchuan Li, Ying-Cong Chen†.

**AnimationBench: Are Video Models Good at Character-Centric Animation?**

**Under Review** | **Leyi Wu\***, Pengjun Fang\*, Kai Sun\*, Yazhou Xing†, Yinwei Wu, Songsong Wang, Ziqi Huang, Dan Zhou, Yingqing He, Ying-Cong Chen, Qifeng Chen†.

**FlexPainter: Flexible and Multi-View Consistent Texture Generation**

**Under Review** | Dongyu Yan\*, **Leyi Wu\***, Jiantao Lin, Luozhou Wang, Tianshuo Xu, Zhifei Chen, Zhen Yang, Lie Xu, Shunsi Zhang, Yingcong Chen†.

**Uni-Renderer: Unifying Rendering and Inverse Rendering Via Dual Stream Diffusion**

**CVPR 2025** | Zhifei Chen\*, Tianshuo Xu\*, Wenhong Ge\*, **Leyi Wu**, Dongyu Yan, Jing He, Luozhou Wang, Lu Zeng, Shunsi Zhang, Yingcong Chen†.

**UniCalli: A Unified Diffusion Framework for Column-Level Generation and Recognition of Chinese Calligraphy**

**ICLR 2025** | Tianshuo Xu, Kai Wang, Zhifei Chen, **Leyi Wu**, Tianshui Wen, Fei Chao, Yingcong Chen†.

**Kiss3DGen: Repurposing Image Diffusion Models for 3D Asset Generation**

**CVPR 2025** | Jiantao Lin\*, Xin Yang\*, Meixi Chen\*, Yingjie Xu, Dongyu Yan, **Leyi Wu**, Xinli Xu, Lie Xu, Shunsi Zhang, Yingcong Chen†.

\* Equal contribution. † Corresponding author.

# Publications, Honors, and Activities

## ● PUBLICATIONS

### **STANCE: Motion Coherent Video Generation Via Sparse-to-Dense Anchored Encoding**

**ECCV 2026** | Zhifei Chen\*, Tianshuo Xu\*, **Leyi Wu\***, Luo Zhou Wang, Dongyu Yan, Zihan You, Wenting Luo, Guo Zhang, Yingcong Chen†.

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**ICLR 2025** | Tianshuo Xu, Kai Wang, Zhifei Chen, **Leyi Wu**, Tianshui Wen, Fei Chao, Yingcong Chen†.

### **Motion Dreamer: Boundary Conditional Motion Reasoning for Physically Coherent Video Generation**

**Under Review** | Tianshuo Xu\*, Zhifei Chen\*, **Leyi Wu**, Hao Lu, Yuying Chen, Lihui Jiang, Bingbing Liu, Yingcong Chen†.

### **Motion Forcing: A Decoupled Framework for Robust Video Generation in Motion Dynamics**

**Under Review** | Tianshuo Xu, Zhifei Chen, **Leyi Wu**, Hao Lu, Yingcong Chen†.

### **A Mechanistic View on Video Generation as World Models: State and Dynamics**

**Survey** | Luo Zhou Wang\*, Zhifei Chen\*, Yihua Du, Dongyu Yan, Wenhong Ge, Guibao Shen, Xinli Xu, **Leyi Wu**, Man Chen, Tianshuo Xu, Peiran Ren, Xin Tao, Pengfei Wan, Yingcong Chen†.

\* Equal contribution. † Corresponding author.

## ● HONORS AND SCHOLARSHIPS

- 2025** **National Scholarship**, the only university-wide annual slot, awarded for academic excellence, research achievements, competitions, and service.
- 2026** **Litchi Innovation Talent Scholarship**, HKUST(GZ), selected from 10 university-wide annual slots.
- 2023-25** **Dean's List Award** for Fall 2023-2024, Spring 2024-2025, and Fall 2024-2025.

## ● RESEARCH COMMUNICATION

- Research output was reposted by Hugging Face community influencer AK and received 10k+ impressions, reflecting active academic communication and community reach.

## ● PROGRAMMING COMPETITIONS AND CHALLENGES

- 2026** **Dual-Track Champion**, 1st Cross-Domain EgoCross Challenge under the 3rd EgoVis Workshop (CVPR 2026); global No. 1 in both tracks, team leader of an all-undergraduate team.
- 2024** **Gold Medal**, 16th place, Huawei Cup 2023 ICPC Asia-East Continent Final Contest.
- 2023** **Silver Medal**, ICPC Asia Hefei Regional Contest.
- 2023** **Silver Medal**, 48th ICPC Asia Regional Contest, Jinan Site.
- 2023** **Silver Medal**, China Collegiate Programming Contest, Shenzhen Site.
- 2023** **Bronze Medal**, China Collegiate Programming Contest, Harbin Site.