

# Xianfeng Wu

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## EDUCATION

- Jianghan University,** Sep. 2020 – June 2024  
*B.E. Artificial Intelligence* | **GPA:** 3.38/4.0 *Hubei, China*
- **Advisor:** Associate Prof. Zhongyuan Lai
  - **Honors:** Bingling Honours Degree; President Scholarship (top scholarship in Jianghan University, <0.1% student); Wuhan Government Scholarship (top scholarship in Wuhan); ASC World Student Supercomputer Competition Second Prize

## RESEARCH AREAS

**Multi-modal Foundation model:** Image/Video Generative model

**Computer Vision:** 3D/4D reconstruction, generation

**AI4Science:** AI for PDE, RNA Foundation model

## SELECTED PUBLICATIONS

### 2025

- Xianfeng Wu<sup>+</sup>, Yajing Bai<sup>+</sup>, Minghan Li, Xianzu Wu, Xueqi Zhao, Zhongyuan Lai, Wenyu Liu, Xinggang Wang\*, 4DLangVGGT: 4D Language Visual Geometry Grounded Transformer, submitted to ICLR '26, under review.  
Github Stars: 50+ [Project], [Github]
- Xianfeng Wu<sup>+</sup>, Yajing Bai<sup>+</sup>, Haoze Zheng<sup>+</sup>, Harold Haodong Chen<sup>+</sup>, Yexin Liu<sup>+</sup>, Zihao Wang, Xuran Ma, Wenjie Shu, Xianzu Wu, Harry Yang\*, Ser-Nam Lim\*, LightGen: Efficient Image Generation through Knowledge Distillation and Direct Preference Optimization, arXiv:2503.08619. Github Stars: 120+ [Github]
- Xuran Ma, Yexin Liu, Yaofu Liu, Xianfeng Wu, Mingzhe Zheng, Zihao Wang, Ser-Nam Lim, Harry Yang, Model Reveals What to Cache: Profiling-Based Feature Reuse for Video Diffusion Models, ICCV '25 [Github]
- Yexin Liu<sup>+</sup>, Zhengyang Lian<sup>+</sup>, Yueze Wang<sup>+</sup>, Xianfeng Wu<sup>+</sup>, Feilong Tang, Muyang He, Jian Li, Zheng Liu, Harry Yang, Ser-Nam Lim, Bo Zhao\*, Unveiling the Ignorance of MLLMs: Seeing Clearly, Answering Incorrectly, CVPR '25 (co-first author) [Github]

### 2024

- Xianzu Wu<sup>+</sup>, Xianfeng Wu<sup>+</sup>, Tianyu Luan, Yajing Bai, Zhongyuan Lai\*, Junsong Yuan, FSC: Few-point Shape Completion, CVPR '24, (co-first author) [Github]

### 2023

Zhuangzhuang Zhang, Libing Wu, Debiao He, Jianxin Li, Shuqin Cao, **Xianfeng Wu**, Communication-Efficient and Byzantine-Robust Federated Learning for Mobile Edge Computing Networks, IEEE Network, pp. 112–119.

### 2022

Xianfeng Wu, Xinyi Liu, Junfei Wang, Zhongyuan Lai, Jing Zhou, Xia Liu, Point cloud classification based on transformer, Computers and Electrical Engineering, 108413.

## RESEARCH EXPERIENCE

- Research Assistant** Sep. 2025 – present  
*Department of Computing, The Hong Kong Polytechnic University* Hung hom, HK
- **Advisor:** Prof. Lei Zhang
  - Worked on Unified Models.

- Research Intern** June 2025 – Sep. 2025  
*School of EIC, Huazhong University of Science and Technology* Hubei, China
- **Advisor:** Prof. Xinggang Wang & Prof. Wenyu Liu
  - Designed the first feed-forward 4D language–vision model based on VGGT, using Deva, CLIP, and MLLMs to auto-label videos and applying 2D guidance for pixel-level semantic learning; achieved strong generalization even with small-scale training data; the project received 50+ GitHub stars.

<b>Research Assistant</b>	July 2024 – June 2025
<i>Division of Arts and Machine Creativity, Hong Kong University of Science and Technology</i>	<i>Clear Water Bay, HK</i>
<ul style="list-style-type: none"> <li>• <b>Advisor:</b> Assistant Prof. Harry Yang</li> <li>• Developed a resource-efficient MAR-based text-to-image foundation model. Achieved capabilities comparable to SD3 and Flux using only a single H100 node; the project received <b>120+ GitHub stars.</b></li> </ul>	
<b>Remote Research Intern</b>	Jan. 2023 – June 2024
<i>Department of Computer Science and Engineering, University at Buffalo</i>	<i>NY, US</i>
<ul style="list-style-type: none"> <li>• <b>Advisor:</b> Prof. Junsong Yuan &amp; Dr. Tianyu Luan</li> <li>• Explored few-point shape completion using a dual-path encoder and dual WGANs, achieving high-fidelity reconstruction from as few as 64 points.</li> </ul>	
<b>Summer Research Intern</b>	June 2023 – Oct. 2023
<i>School of Engineering, Westlake University</i>	<i>Zhejiang, China</i>
<ul style="list-style-type: none"> <li>• <b>Advisor:</b> Assistant Prof. Tailin Wu</li> <li>• Developed a GNN-based inverse modeling framework that estimates PDE system coefficients from observed initial states and significantly improves downstream time-step prediction; demonstrated effectiveness on 1D PDEs and 2D FNO benchmark datasets.</li> </ul>	
<b>Research Intern</b>	June 2022 – Dec 2022
<i>School of Cyber Science and Engineering, Wuhan University</i>	<i>Hubei, China</i>
<ul style="list-style-type: none"> <li>• <b>Advisor:</b> Prof. Libing Wu</li> <li>• Worked on foundational research in federated learning and reinforcement learning.</li> </ul>	

## EXPERIENCE

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<b>Undergraduate Teaching Assistant</b>	Jan. 2023 – June. 2023
<i>School of Artificial Intelligence, Jianghan University</i>	<i>Hubei, China</i>
<ul style="list-style-type: none"> <li>• Mentored <b>over 100</b> students enrolled in Object Oriented Programming (C++) and Digital Image Processing to <b>both</b> Artificial Intelligence and non-technical majors</li> </ul>	

## SERVICE

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<b>Academic Journal and Conference Reviewer</b>
<ul style="list-style-type: none"> <li>• ICLR 25', ICCV 25', IEEE Transactions on Visualization and Computer Graphics (TVCG)</li> </ul>
<b>Membership in Professional Societies</b>

- China Society of Image and Graphics (CSIG) Student Member

## TECHNICAL SKILLS

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<b>Languages</b>
<ul style="list-style-type: none"> <li>• Python, MATLAB, C/C++, Java</li> </ul>
<b>Frameworks / Libraries</b>
<ul style="list-style-type: none"> <li>• PyTorch, TensorFlow</li> </ul>
<b>Tools</b>
<ul style="list-style-type: none"> <li>• Docker, Git, Linux, Slurm</li> </ul>