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**[+], Yajing Bai[+], 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**[+], Yajing Bai[+], Haoze Zheng[+], Harold Haodong Chen[+], Yexin Liu[+], 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[+], Zhengyang Lian[+], Yueze Wang[+], **Xianfeng Wu**[+], 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[+], **Xianfeng Wu**[+], 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

Remote Research Intern Aug. 2025 – present

Department of Computer Science, University of North Carolina at Chapel Hill *NC, US*

- **Advisor**: Assistant Prof. Tianlong Chen
- Developing an RNA foundation model for RNA inverse design using continuous consistency modeling.

Remote Research Intern Aug. 2025 – present

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**.

Research Assistant
July 2024 – June 2025

Division of Arts and Machine Creativity, Hong Kong University of Science and Technology   *Clear Water Bay, HK*

- **Advisor**: Assistant Prof. Harry Yang
- 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 **120+ GitHub stars**.

Remote Research Intern
Jan. 2023 – June 2024

Department of Computer Science and Engineering, University at Buffalo   *NY, US*

- **Advisor**: Prof. Junsong Yuan & Dr. Tianyu Luan
- Explored few-point shape completion using a dual-path encoder and dual WGANs, achieving high-fidelity reconstruction from as few as 64 points.

Summer Research Intern
June 2023 – Oct. 2023

School of Engineering, Westlake University   *Zhejiang, China*

- **Advisor**: Assistant Prof. Tailin Wu
- 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.

Research Intern
June 2022 – Dec 2022

School of Cyber Science and Engineering, Wuhan University   *Hubei, China*

- **Advisor**: Prof. Libing Wu
- Worked on foundational research in federated learning and reinforcement learning.

EXPERIENCE

Undergraduate Teaching Assistant
Jan. 2023 – June. 2023

School of Artificial Intelligence, Jianghan University   *Hubei, China*

- Mentored **over 100** students enrolled in Object Oriented Programming (C++) and Digital Image Processing to **both** Artificial Intelligence and non-technical majors

SERVICE

Academic Journal and Conference Reviewer

- ICLR 25', ICCV 25', IEEE Transactions on Visualization and Computer Graphics (TVCG)

Membership in Professional Societies

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

TECHNICAL SKILLS

Languages

- Python, MATLAB, C/C++, Java

Frameworks / Libraries

- PyTorch, TensorFlow

Tools

- Docker, Git, Linux, Slurm