

# Hui Shen

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## Education

**University of Michigan**, Ph.D. Student in Computer Science Sep.2025 - ?  
**The Ohio State University**, B.S. in Computer & Information Science Graduated in Dec.2024  
• GPA: 3.95/4.0, Major GPA: 4.0/4.0, Summa Cum Laude

## Research Interest

**Fields:** Generative Models, Efficient AI, LLM Reasoning

## Publications & Manuscripts

### Famba-V: Fast Vision Mamba with Cross-Layer Token Fusion

*Hui Shen*, Zhongwei Wan, Xin Wang, Mi Zhang

**ECCV 2024 Workshop on Computational Aspects of Deep Learning (Best Paper Award)**

### Efficient Diffusion Models: A Survey

*Hui Shen*, Jingxuan Zhang, Boning Xiong, Rui Hu, Shoufa Chen, Zhongwei Wan, Xin Wang, Yu Zhang, Zixuan Gong, Guangyin Bao, Chaofan Tao, Yongfeng Huang, Ye Yuan, Mi Zhang

**Transactions on Machine Learning Research (TMLR-2025)**

### PhyX: Does Your Model Have the "Wits" for Physical Reasoning?

*Hui Shen*, Taiqiang Wu, Qi Han, Yunta Hsieh, Jizhou Wang, Yuyue Zhang, Yuxin Cheng, Zijian Hao, Yuansheng Ni, Xin Wang, Zhongwei Wan, Kai Zhang, Wendong Xu, Jing Xiong, Ping Luo, Wenhui Chen, Chaofan Tao, Z. Morley Mao, Ngai Wong

Submitted to NeurIPS 2025 D&B Track.

### Artificial Intelligence of Things: A Survey

Shakhrul Iman Siam, Hyunho Ahn, Li Liu, Samiul Alam, *Hui Shen*, Zhichao Cao, Bhaskar Krish-namachari, Mani Srivastava, Mi Zhang

**ACM Transactions on Sensor Networks**

### FedAIoT: A Federated Learning Benchmark for Artificial Intelligence of Things

Samiul Alam, Tuo Zhang, Tiantian Feng, *Hui Shen*, Zhichao Cao, Dong Zhao, JeongGil Ko, Kiran Somasundaram, Shrikanth S Narayanan, Salman Avestimehr, Mi Zhang

**Journal of Data-centric Machine Learning Research**

### MEDA: Dynamic KV Cache Allocation for Efficient Multimodal Long-Context Inference

Zhongwei Wan, *Hui Shen*, Xin Wang, Mi Zhang

**NAACL 2025**

### SVD-LLM V2: Optimizing Singular Value Truncation for Large Language Model Compression

Xin Wang, Samiul Alam, Zhongwei Wan, *Hui Shen*, Mi Zhang

**NAACL 2025**

### Autoregressive Models in Vision: A Survey

Jing Xiong, Gongye Liu, Lun Huang, Chengyue Wu, Taiqiang Wu, Yao Mu, Yuan Yao, *Hui Shen*, Zhongwei Wan, Jinfa Huang, Chaofan Tao, Shen Yan, Huaxiu Yao, Lingpeng Kong, Hongxia Yang, Mi Zhang, Guillermo Sapiro, Jiebo Luo, Ping Luo, Ngai Wong

**Transactions on Machine Learning Research (TMLR-2025)**

### MEIT: Multi-Modal Electrocardiogram Instruction Tuning on Large Language Models for Report Generation

Zhongwei Wan, Che Liu, Xin Wang, Chaofan Tao, *Hui Shen*, Zhenwu Peng, Jie Fu, Rossella Arcucci, Huaxiu Yao, Mi Zhang

## ACL 2025 Findings

### Benchmarking and Boosting Radiology Report Generation for 3D High-Resolution Medical Images

Che Liu, Zhongwei Wan, Yuqi Wang, **Hui Shen**, Haozhe Wang, Kangyu Zheng, Mi Zhang, Rossella Arcucci

## ACL 2025 Findings

## Research Experience

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<b>Research Assistant</b> , Advisor: Prof. Z. Morley Mao <i>RobustNet Lab, Department of Electrical Engineering and Computer Science</i> <b>University of Michigan</b> , MI, USA	May, 2025 – Present
<b>Research Assistant</b> , Advisor: Prof. Ngai Wong <i>Next Gen AI Lab, Department of Electrical and Electronic Engineering</i> <b>The University of Hong Kong</b> , Hong Kong SAR, China	Jan, 2025 – Present
<b>Research Assistant</b> , Advisor: Prof. Mi Zhang <i>AIoT and Machine Learning Systems Lab, Department of Computer Science and Engineering</i> <b>The Ohio State University</b> , OH, USA	Apr, 2023 – Dec, 2024
<b>Research Assistant</b> , Advisor: Prof. Jingbo Meng <i>Computational and Statistical Models Group, School of Communication</i> <b>The Ohio State University</b> , OH, USA	Sep, 2023 – Sep, 2024

## Teaching Experience

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<b>The Ohio State University</b> , OH, USA <b>Teaching Assistant</b> <i>Systems II: Introduction to Operating Systems (CSE 2431)</i>	Aug, 2024 – Dec, 2024
<b>Teaching Assistant</b> <i>Introduction to Digital Logic (ECE 2060)</i>	Aug, 2024 – Dec, 2024

## Work Experience

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<b>Software Engineering Intern</b> , Swire Coca-Cola China – Hangzhou	June, 2022 – Aug, 2022
<b>Co-founder</b> , Bridge Path Education – Hangzhou	May, 2024 – Present

## Award

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<b>CSE Fellowship</b> , University of Michigan	2025
<b>Best Paper Award in ECCV 2024 Workshop</b> , NVIDIA	2024
<b>Microsoft for Startups Founders Hub Member</b> , Microsoft	2024

## Skills

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**Programming Languages:** Python, C/C++, Java, SQL, JavaScript, HTML/CSS, C#  
**Tools and Frameworks:** Git, PyTorch, LaTeX, Markdown, Docker, React, Vue