Hui Shen

Ann Arbor, MI | huishen@umich.edu | nastymarcus.github.io | github.com/NastyMarcus

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, Wenhu 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

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

Research Experience

Research Assistant, Advisor: Prof. Z. Morley Mao — May, 2025 – Present
RobustNet Lab, Department of Electrical Engineering and Computer Science
University of Michigan, MI, USA

Research Assistant, Advisor: Prof. Ngai Wong — Jan, 2025 – Present
Next Gen AI Lab, Department of Electrical and Electronic Engineering
The University of Hong Kong, Hong Kong SAR, China

Research Assistant, Advisor: Prof. Mi Zhang — Apr, 2023 – Dec, 2024
AIoT and Machine Learning Systems Lab, Department of Computer Science and Engineering
The Ohio State University, OH, USA

Research Assistant, Advisor: Prof. Jingbo Meng — Sep, 2023 – Sep, 2024
Computational and Statistical Models Group, School of Communication
The Ohio State University, OH, USA

Teaching Experience

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

Work Experience

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

Award

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

Skills

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