Yusen Peng

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Education

The Ohio State University *August 2026 – Present*
PhD in Computer Science and Engineering
- Advisor: Prof. Sachin Kumar
- Research interest: training and inference efficiency in multimodal LLMs
- Ongoing project: dynamic image tokenization for efficient MLLMs (e.g., LLaVA, QwenVL)
- $34,764 University Graduate Fellowship

The Ohio State University *August 2022 – May 2026*
B.S. in Computer Science and Engineering (GPA: 3.993/4.0)
- Honorable Mention for CRA Outstanding Undergraduate Researcher Award
- $2,200 Undergraduate Research Scholarship

Publications

CE-Bench: Towards a Reliable Contrastive Evaluation Benchmark of Interpretability of Sparse Autoencoders
Alex Gulko*, Yusen Peng*, Sachin Kumar
Proceedings of the 8th BlackboxNLP Workshop at EMNLP 2025
Domains: Mechanistic Interpretability; Datasets & Benchmarks
https://aclanthology.org/2025.blackboxnlp-1.1

CascadeFormer: A Family of Two-stage Cascading Transformers for Skeleton-based Human Action Recognition
Yusen Peng, Alper Yilmaz
accepted at 28th International Conference on Pattern Recognition (ICPR), 2026
Domains: Action Recognition; Transformer-based Architecture
https://arxiv.org/pdf/2509.00692

Submissions Under Review

TSB-FCST: A Billion-Scale Time-Series Forecasting Benchmark with Taxonomy-Specific Evaluation
Fan Yang, Yusen Peng, and John Paparrizos
under review (NeurIPS 2026 D&B Track)
Domains: Time Series Forecasting; Datasets and Benchmarks

SVD^3: Singular Value Decomposition for Visual Geometry Model Compression
Yusen Peng, Haoxuan Wang, Jiachen Tao, Yan Yan
under review (ECCV 2026)
Domains: Low-rank Approximation (SVD); 3D Vision

pytskit: A Comprehensive Time Series Toolkit
John Paparrizos, Fan Yang, Yusen Peng, Tomasz Frelek, Frank Li, Qiao Xiao, and Mark Kikta
under review (JMLR)
Domains: Time Series Analysis; Open-source ML Software

Lower-quality public housing corresponds to elevated flood risk and social disadvantage
Woi Sok Oh, Kelsea Best, Meri Davlasheridze, Yusen Peng.
under review (Natural Hazards)
Domains: Regression Modeling; Data Analytics

Academic Service

reviewed 3 papers at NeurIPS 2025 Mechanistic Interpretability Workshop
reviewed 4 papers at ICML 2026 Mechanistic Interpretability Workshop