

Education

- **Ph.D Student, Tsinghua University** Beijing, China
Institute for Interdisciplinary Information Sciences Sep 2025-present
 - **Advisor:** Prof. Kaifeng Lyu
- **University of California, Berkeley** Berkeley, CA
Visiting Student Aug 2023-Dec 2023
 - **GPA:** 4.00/4.00
- **B.Eng, Xi'an Jiaotong University** Xian, China
Artificial Intelligence Pilot class; Qian Xuesen Honors College Sep 2021 - Jun 2025
 - **GPA (cumulative):** 91.53

Research Interests

- Scaling Behaviors of Large Language Model (Scaling laws, Hyperparameter Transfer, Theoretical Models of Scaling Law)
- Pretraining Data (Data Mixing, Synthetic Data)
- Training Dynamics of Neural Networks (Edge of Stability, River Valley, Flat Minima)

Publication List

(*: equal contribution; $\alpha\beta$: alphabet ordering)

1. *Frontier Language Models Struggle to Copy: Text Can Be Better Viewed in 2D*
Haodong Wen*, Yiran Zhang*, Yingfa Chen*, Kaifeng Lyu
ArXiv Soon
2. *Does LLM Pre-Training Typically Occur at the Edge of Stability?*
Yuhang Cai*, Haofeng Huang*, **Haodong Wen***, Deyi Liu, Yiyuan Ma, Kaifeng Lyu
ICLR 2026 Workshop on Scientific Methods for Understanding Deep Learning
3. *Larger Datasets Can Be Repeated More: A Theoretical Analysis of Multi-Epoch Scaling in Linear Regression*
Tingkai Yan*, **Haodong Wen***, Binghui Li*, Kairong Luo, Wenguang Chen, Kaifeng Lyu
ICLR 2026, NeurIPS 2025 OPT workshop Oral
4. *How Learning Rate Decay Wastes Your Best Data in Curriculum-Based LLM Pretraining*
Kairong Luo, Zhenbo Sun, **Haodong Wen**, Xinyu Shi, Jiarui Cui, Chenyi Dang, Kaifeng Lyu, Wenguang Chen
ICLR 2026, Oral
5. *Adam Reduces a Unique Form of Sharpness: Theoretical Insights Near the Minimizer Manifold*
Xinghan Li^{*, $\alpha\beta$} , **Haodong Wen**^{*, $\alpha\beta$} , Kaifeng Lyu
NeurIPS 2025
6. *A Multi-Power Law for Loss Curve Prediction Across Learning Rate Schedules*
Kairong Luo, **Haodong Wen**, Shengding Hu, Zhenbo Sun, Zhiyuan Liu, Maosong Sun, Kaifeng Lyu, Wenguang Chen
ICLR 2025
7. *Exploring the Robustness of In-Context Learning with Noisy Labels*
Cheng chen*, Xinzhi Yu*, **Haodong Wen***, Jingsong Sun, Guanzhang Yue, Yihao Zhang, Zeming Wei
ICASSP 2025

Honors and Awards

- Megvil all-round Scholarship (2/56), 2021-2022, 2022-2023
- Merit Student, 2021-2022, 2022-2023