

YIPING WANG

✉ ypwang61@cs.washington.edu / ✉ yipingwang6161@gmail.com

🌐 <https://ypwang61.github.io/>

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🎓 EDUCATION

University of Washington, Seattle

Sept. 2023 - Present

Ph.D. student in Paul G. Allen School of Computer Science & Engineering

Adviser: Prof. [Simon Shaolei Du](#)

Zhejiang University

Sept. 2019 - June 2023

B.Eng. in Computer Science & Technology at College of Computer Science and Technology

- **Minor Program:** Mathematics and Applied Mathematics, Earned Credits: 45.5.
- **Performance:** Grade: 3.97/4.0 (91.7/100), Rank: Top 1%.

📖 RESEARCH INTEREST

My main research interest lies in **machine learning theory**, especially **the foundations of deep learning and representation learning**. I am also keen on developing practical machine learning algorithms with strong theoretical guarantees. Currently, I'm working on optimizing **data selection methods for training foundational models**, together with accelerating model inference and video generation. Furthermore, I am always enthusiastic about understanding the essence of intelligence and exploring the cross-cutting areas of mathematics, physics, and AI, like to explore how to use LLM for complex reasoning and proving mathematical problems.

👥 PROFESSIONAL EXPERIENCES

1. **Research Intern @ Microsoft, Weizhu Chen's Group**

June 2024 - Present

Mentor: [Yelong Shen](#) and [Shuohang Wang](#)

Project: Video Generation

📄 PREPRINT

* denotes equal contribution or alphabetical ordering.

1. **Is Your World Simulator a Good Story Presenter? A Consecutive Events-Based Benchmark for Future Long Video Generation**
Yiping Wang, Xuehai He, Kuan Wang, Luyao Ma, Jianwei Yang, Shuohang Wang, Simon Shaolei Du, Yelong Shen
In submission to CVPR2025.
2. **Mojito: Motion Trajectory and Intensity Control for Video Generation**
Xuehai He, Shuohang Wang, Jianwei Yang, Xiaoxia Wu, **Yiping Wang**, Kuan Wang, Zheng Zhan, Olatunji Ruwase, Yelong Shen, Xin Eric Wang
In submission to CVPR2025.
3. **SHARP: Accelerating Language Model Inference by SHaring Adjacent layers with Recovery Parameters**
Yiping Wang, Hanxian Huang, Yifang Chen, Jishen Zhao, Simon S. Du, Yuandong Tian
In submission to ICLR2025.

📄 PUBLICATIONS

(* denotes equal contribution or alphabetical ordering)

1. **Infer Human's Intentions Before Following Natural Language Instructions** [[Arxiv](#)]
Yanming Wan, Yue Wu, **Yiping Wang**, Jiayuan Mao, Natasha Jaque
NeurIPS 2024 Workshop Open-World Agents

2. **CLIPLoss and Norm-Based Data Selection Methods for Multimodal Contrastive Learning** [[Arxiv](#)]
Yiping Wang*, Yifang Chen*, Wendan Yan, Alex Fang, Wenjing Zhou, Kevin Jamieson, Simon S. Du
NeurIPS 2024 ([Spotlight](#))
3. **JoMA: Demystifying Multilayer Transformers via JOint Dynamics of MLP and Attention** [[Arxiv](#)]
 Yuandong Tian, **Yiping Wang**, Zhenyu Zhang, Beidi Chen, Simon S. Du
ICLR 2024.
4. **Scan and Snap: Understanding Training Dynamics and Token Composition in 1-layer Transformer** [[Arxiv](#)]
 Yuandong Tian, **Yiping Wang**, Beidi Chen, Simon S. Du
NeurIPS 2023.
[Oral](#) presentation at High-dimensional learning dynamics workshop at ICML 2023
5. **Improved Active Multi-Task Representation Learning via Lasso** [[Arxiv](#)]
Yiping Wang, Yifang Chen, Kevin Jamieson, Simon S. Du
ICML 2023.
6. **C-Mixup: Improving Generalization in Regression** [[Arxiv](#)] [[Code](#)]
 Huaxiu Yao*, **Yiping Wang***, Linjun Zhang, James Zou, Chelsea Finn
NeurIPS 2022.

📖 HONORS AND AWARDS

<i>Chu Kochen Scholarship</i> in Zhejiang University	2022
<i>National Scholarship</i> in Chu Kochen Honor College	2020
<i>1st Prize</i> for Academic Excellence in Chu Kochen Honor College	2020&2021&2022
<i>1st Prize</i> in Zhejiang Division of National Mathematics Competition for College Students	2020

⚙️ PROFESSIONAL ACTIVITIES

- Paper Reviewer: NeurIPS23, ICLR24, ICML24, TF2M@ICML24, DMLR@ICML24, NeurIPS24, ICLR24
- UW CSE Ph.D. Admission Reviewer: 2024.