YIPING WANG

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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

- **Performance**: Grade: **3.97/4.0 (91.7/100)**; Rank:**Top 1%**
- **Honors Program**: Mixed Class in Chu Kochen Honors College (Top 5% students in Zhejiang University)
- **Minor Program**: Mathematics and Applied Mathematics , Earned Credits: 45.5
- **Highest level scholarship in ZJU**: Chu Kochen Scholarship (**Top 12 in 20000+ undergraduates**)

🔖 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, and currently, I'm working on optimizing **data selection methods for training foundational models**. Furthermore, I am always enthusiastic about understanding the essence of intelligence and exploring the cross-cutting areas of mathematics, physics, and AI.

⊙ PUBLICATIONS

* denotes equal contribution or alphabetical ordering.

1. **JoMA: Demystifying Multilayer Transformers via JOint Dynamics of MLP and Attention** [Arxiv]
   Yuandong Tian, Yiping Wang, Zhenyu Zhang, Beidi Chen, Simon Du
   International Conference on Learning Representations (ICLR) 2024.
2. **Scan and Snap: Understanding Training Dynamics and Token Composition in 1-layer Transformer** [Arxiv]
   Yuandong Tian, Yiping Wang, Beidi Chen, Simon Du
   Conference on Neural Information Processing Systems (NeurIPS) 2023.
   Selected as Oral presentation at High-dimensional learning dynamics workshop at ICML 2023
3. **Improved Active Multi-Task Representation Learning via Lasso** [Arxiv]
   Yiping Wang, Yifang Chen, Kevin Jamieson, Simon Du
   International Conference on Machine Learning (ICML) 2023.
4. **C-Mixup: Improving Generalization in Regression** [Arxiv] [Code]
   Huaxiu Yao*, Yiping Wang*, Linjun Zhang, James Zou, Chelsea Finn
   Conference on Neural Information Processing Systems (NeurIPS) 2022.

🏳 HONORS AND AWARDS

Chu Kochen Scholarship in Zhejiang University (**Top 12 in 20000+ undergraduates**)   2022
National Scholarship in Chu Kochen Honor College (**Top 2% in 600+ students**)   2020
Provincial Government Scholarship in Chu Kochen Honor College (**Top 5% in 600+ students**)   2021
Excellence Scholarship in Chu Kochen Honor College (**Top 1% in 600+ students**)   2021
Pilot Scholarship for Academic Excellence in Chu Kochen Honor College (**Top 10% in 600+ students**) 2020
1st Prize for Academic Excellence in Chu Kochen Honor College   2020&2021&2022
1st Prize in Zhejiang Division of National Mathematics Competition for College Students   2020
Five-Star Volunteer in Chu Kochen Honor College (Volunteer hours over 250 h)   2021

⚙ MISCELLANEA

- Programming Languages: C, C++, Python, LaTeX, MATLAB, Verilog HDL
- **TOEFL iBT**: Total 109/120, Reading 29/30, Listening 27/30, Speaking 25/30, Writing 28/30.
- Hobbies: Working out, playing ping-pong, anime.
- Service: Reviewer of NeurIPS 2023, ICLR 2024