

Jinxin Zhou

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Google Scholar

EDUCATION

- **Ohio State University (OSU)** Columbus, OH
Doctor of Philosophy in Computer Science and Engineering; GPA: 3.61/4.00 Aug. 2022 - Present
- **University of Denver (DU)** Denver, CO
Doctor of Philosophy in Electrical Engineering (Incomplete); GPA: 3.61/4.00 Aug. 2021 - May. 2022
- **University of Michigan (UMich)** Ann Arbor, MI
Master of Science in Electrical Engineering and Computer Science; GPA: 4.00/4.00 Aug. 2019 - May 2021
- **Huazhong University of Science and Technology (HUST)** Wuhan, China
Bachelor of Science in Electrical Engineering and Automation; GPA: 3.88/4.00 Sep. 2015 - June 2019

EXPERIENCE

- **Machine Learning Engineer Intern @ Adobe, San Jose, CA** May. 2024 - Aug. 2024
- **Research Intern @ Microsoft, Redmond, WA** May. 2023 - Aug. 2023
- **Research Assistance @ Ohio State University, Columbus, OH** Aug. 2022 - Present
- **Research Assistance @ University of Denver, Denver, CO** Aug. 2021 - May. 2022
- **Research Assistance @ University of Michigan, Ann Arbor, MI** Jan. 2020 - Dec. 2020

PREPRINT

1. **Jinxin Zhou**, Jiachen Jiang and Zhihui Zhu, Improving Visual Discriminability of CLIP for Training-Free Open-Vocabulary Semantic Segmentation, (**ICLR**) submitted, 2025.
2. Zhen Qin*, **Jinxin Zhou***, and Zhihui Zhu, On the Convergence of Gradient Descent on Learning Transformers with Residual Connections, (**Airxiv**), 2025.
3. Jiachen Jiang, Yuxin Dong, **Jinxin Zhou**, and Zhihui Zhu, From Compression to Expansion: A Layerwise Analysis of In-Context Learning, (**Airxiv**), 2025.
4. Yong Ma, Luming Liang, Tianyu Ding, **Jinxin Zhou**, D-STAR: Diffusion Model with Spatial-Temporal Adaptive Rectification, (**Airxiv**), 2025.
5. Jiachen Jiang, Tianyu Ding, Ke Zhang, **Jinxin Zhou**, Tianyi Chen, Ilya Zharkov, Zhihui Zhu, Luming Liang, Cat-AIR: Content and Task-Aware All-in-One Image Restoration, (**Airxiv**), 2025.
6. Tianyu Ding, Tianyi Chen, Haidong Zhu, Jiachen Jiang, Yiqi Zhong, **Jinxin Zhou**, Guangzhi Wang, Zhihui Zhu, Ilya Zharkov and Luming Liang, The Efficiency Spectrum of Large Language Models: An Algorithmic Survey, (**AirXiv**), 2023.
7. Tianyu Ding, **Jinxin Zhou**, Tianyi Chen, Zhihui Zhu, Ilya Zharkov, and Luming Liang, AdaContour: Adaptive Contour Descriptor with Hierarchical Representation, (**Airxiv**), 2023.

PUBLICATIONS

1. Jiachen Jiang, **Jinxin Zhou**, Bo Peng, Xia Ning and Zhihui Zhu, Analyzing Fine-Grained Alignment and Enhancing Vision Understanding in Multimodal Language Models, Advances in Neural Information Processing Systems (**NeurIPS**), 2025.
2. Jiachen Jiang, **Jinxin Zhou**, Zhihui Zhu, On Layer-wise Representation Similarity: Application for Multi-Exit Models with a Single Classifier, International Conference on Learning Representations (**ICLR**), 2025.
3. Lijun Ding, Zhen Qin, Liwei Jiang, **Jinxin Zhou**, and Zhihui Zhu, A Validation Approach to Over-parameterized Matrix and Image Recovery, Conference on Parsimony and Learning (**CPAL**), 2025.
4. **Jinxin Zhou**, Jiachen Jiang and Zhihui Zhu, Are all layers created equal: A neural collapse perspective, Conference on Parsimony and Learning (**CPAL**), 2025.
5. **Jinxin Zhou***, Tianyu Ding*, Tianyi Chen, Jiachen Jiang, Ilya Zharkov, Zhihui Zhu and Luming Liang, DREAM: Diffusion Rectification and Estimation-Adaptive Models, IEEE / CVF Computer Vision and Pattern Recognition Conference (**CVPR**), 2024.
6. Jiachen Jiang*, **Jinxin Zhou***, Peng Wang, Qing Qu, Dustin Mixon, Chong You and Zhihui Zhu, Generalized Neural Collapse for A Large Number of Classes, International Conference on Learning Representations (**ICML**), 2024.
7. Xiao Li, Sheng Liu, **Jinxin Zhou**, Xinyu Lu, Fernandez-Granda Carlos, Zhihui Zhu, and Qing Qu, Principled and Efficient Transfer Learning of Deep Models via Neural Collapse, Transactions on Machine Learning Research (**TMLR**), 2023.
8. **Jinxin Zhou**, Chong You, Xiao Li, Kangning Liu, Sheng Liu, Qing Qu, and Zhihui Zhu, Are All Losses Created Equal: A Neural Collapse Perspective, Advances in Neural Information Processing Systems (**NeurIPS**), 2022.

9. **Jinxin Zhou***, Xiao Li*, Tianyu Ding, Chong You, Qing Qu, and Zihui Zhu, On the Optimization Landscape of Neural Collapse under MSE Loss: Global Optimality with Unconstrained Features, International Conference on Machine Learning (**ICML**), 2022.
10. Zihui Zhu, Tianyu Ding, **Jinxin Zhou**, Xiao Li, Chong You, Jeremias Sulam, and Qing Qu, A Geometric Analysis of Neural Collapse with Unconstrained Features, Advances in Neural Information Processing Systems (**NeurIPS**), 2021.
11. **Jinxin Zhou**, Chuan Zhou, Heang-Ping Chan, Lubomir M Hadjiiski, and Qian Dong, Deep Learning Based Similarity-consistency Abnormality Detection (SCAD) Model for Classification of MRI Patterns of Multiple Myeloma (MM) Infiltration, In Proceedings of SPIE Conference on Medical Imaging (**SPIE**), 2021.

PATENTS

- (a) **Jinxin Zhou**, Hui Qu, Saeid Mottian, Krishna Kumar Singh, and Ratheesh Kalarot, Boximotion: Still Images into Dynamic Videos with Bounding Box Control, Adobe, 2024. (**Submitted**)

SKILLS

- **Languages:** Python, Matlab, C/C++, Java
- **Frameworks:** Windows, Linux

PROFESSIONAL SERVICES

- **Conference Reviewer:** ICML (2022-2025), NeurIPS (2023-2025), ICLR (2022-2025), CVPR(2024-2025), ICASSP (2023)
- **Journal Reviewer:** TPAMI, JMLR