




# XIAOMING ZHAO

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INTERESTS **Computer vision, generative models, and machine learning.**

EDUCATION **University of Illinois Urbana-Champaign**, Urbana, IL, USA  
Doctor of Philosophy in Computer Science 08/2019 - 12/2024  
Advisor: Prof. Alexander Schwing  
Thesis: Harnessing Data Priors to Mitigate 3D Data Scarcity  
Master of Science in Computer Science 08/2017 - 05/2019  
Advisor: Prof. Jian Peng  
**University of Science and Technology of China**, Hefei, Anhui, China  
Bachelor of Science in Statistics 09/2012 - 07/2016

EMPLOYMENTS **Machine Learning Research (MLR), Apple**, Cupertino, CA, USA  
Research Scientist 12/2024 - present  
**Google**, San Francisco, CA, USA  
Research Intern (*with Keunhong Park, Philipp Henzler, Pratul Srinivasan, Dor Verbin, Ricardo Martin-Brualla*) 09/2023 - 08/2024  
**Apple**, Seattle, WA, USA  
Research Intern (*with Alexander Schwing and Alex Colburn*) 02/2023 - 09/2023  
**Reality Labs, Meta**, Seattle, WA, USA  
Research Scientist Intern (*with Shunsuke Saito, Minh P. Vo, Jia-Bin Huang*) 05/2022 - 12/2022  
**Apple**, Seattle, WA, USA  
Machine Learning Research Intern (*with Alex Colburn and Fangchang Ma*) 05/2021 - 05/2022  
**Kuaishou US R&D Center**, Bellevue, WA, USA  
Research Intern (*with Ji Liu*) 05/2019 - 08/2019  
**Tencent AI Lab**, Bellevue, WA, USA  
Machine Learning Researcher Intern (*with Boqing Gong*) 05/2018 - 08/2018

PUBLICATIONS [13] Studying Classifier(-Free) Guidance From a Classifier-Centric Perspective.  
**Xiaoming Zhao** and Alexander G. Schwing.  
*arXiv*, 2025.  
[12] IllumiNeRF: 3D Relighting Without Inverse Rendering.  
**Xiaoming Zhao**, Pratul P. Srinivasan, Dor Verbin, Keunhong Park, Ricardo Martin Brualla,  
Philipp Henzler.  
In *Neural Information Processing Systems (NeurIPS)*, 2024.

- [11] GoMAvatar: Efficient Animatable Human Modeling from Monocular Video Using Gaussians-on-Mesh.  
Jing Wen, **Xiaoming Zhao**, Zhongzheng Ren, Alexander G. Schwing, Shenlong Wang.  
In *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2024.
- [10] NeRFDeformer: NeRF Transformation from a Single View via 3D Scene Flows.  
Zhenggang Tang, Zhongzheng Ren, **Xiaoming Zhao**, Bowen Wen, Jonathan Tremblay, Stan Birchfield, Alexander G. Schwing.  
In *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2024.
- [9] Pseudo-Generalized Dynamic View Synthesis from a Video.  
**Xiaoming Zhao**, Alex Colburn, Fangchang Ma, Miguel Ángel Bautista, Joshua M. Susskind, Alexander G. Schwing.  
In *International Conference on Learning Representations (ICLR)*, 2024.
- [8] Occupancy Planes for Single-view RGB-D Human Reconstruction.  
**Xiaoming Zhao**, Yuan-Ting Hu, Zhongzheng Ren, Alexander G. Schwing.  
In *AAAI Conference on Artificial Intelligence (AAAI)*, 2023.
- [7] Generative Multiplane Images: Making a 2D GAN 3D-Aware.  
**Xiaoming Zhao**, Fangchang Ma, David Güera, Zhile Ren, Alexander G. Schwing, Alex Colburn.  
In *European Conference on Computer Vision (ECCV)*, 2022. **(Oral)**.
- [6] Initialization and Alignment for Adversarial Texture Optimization.  
**Xiaoming Zhao**, Zhizhen Zhao, Alexander G. Schwing.  
In *European Conference on Computer Vision (ECCV)*, 2022.
- [5] Class-agnostic Reconstruction of Dynamic Objects from Videos.  
Zhongzheng Ren\*, **Xiaoming Zhao**\*, Alexander G. Schwing.  
(\* indicates equal contribution)  
In *Neural Information Processing Systems (NeurIPS)*, 2021.
- [4] The Surprising Effectiveness of Visual Odometry Techniques for Embodied PointGoal Navigation.  
**Xiaoming Zhao**, Harsh Agrawal, Dhruv Batra, Alexander G. Schwing.  
In *International Conference on Computer Vision (ICCV)*, 2021.
- [3] Mitigating Data Scarcity in Protein Binding Prediction Using Meta-Learning.  
Yunan Luo\*, Jianzhu Ma\*, **Xiaoming Zhao**, Yufeng Su, Yang Liu, Trey Ideker, Jian Peng.  
(\* indicates equal contribution)  
In *Research in Computational Molecular Biology (RECOMB)*, 2019.
- [2] Integrating Thermodynamic and Sequence Contexts Improves Protein-RNA Binding Prediction.  
Yufeng Su, Yunan Luo, **Xiaoming Zhao**, Yang Liu, Jian Peng.  
*PLOS Computational Biology*, 2019.
- [1] Stochastic Variance Reduction for Deep Q-Learning.  
Wei-Ye Zhao, Xi-Ya Guan, Yang Liu, **Xiaoming Zhao**, Jian Peng.  
*arXiv*, 2019.

## TALKS

### Harnessing “Dark” Data

Waymo Research, Adobe, Figma, xAI, Amazon, Google	09/2024
Microsoft Applied Science, Apple Machine Learning Research, ByteDance	08/2024
Google DeepMind	07/2024

	<b>IllumiNeRF: 3D Relighting without Inverse Rendering</b>	
	Google	07/2024
	<b>Towards Automatic 3D-Consistent Content Generation</b>	
	Adobe Research	03/2024
	<b>Pseudo-Generalized Dynamic View Synthesis from a Video</b>	
	Apple	06/2024
	Google	01/2024
	<b>Generative Multiplane Images</b>	
	Meta	08/2022
<b>TEACHING</b>	<b>University of Illinois Urbana-Champaign</b>	
	CS588: Autonomous Vehicle System Engineering	Fall 2021
	CS446/ECE449: Machine Learning	Spring 2021
	CS440/ECE448: Artificial Intelligence	Fall 2020
	CS498AML: Applied Machine Learning	Spring 2019
	CS598BL: Special Topics on Adversarial Machine Learning	Fall 2018
<b>AWARDS AND HONORS</b>	<b>University of Illinois Urbana-Champaign</b>	
	University nomination (one of three) for 2023 Apple Scholars in AI/ML	2022
	Graduate Student SSBG Fellowship	2020
	<b>University of Science and Technology of China</b>	
	Outstanding Graduates	2016
	Outstanding Undergraduate Scholarship	2013, 2015
	Seagate Scholarship	2014
	Outstanding Freshman Scholarship	2012
	<b>Ministry of Education, China</b>	
	Honorably received waiver for the National College Entrance Exam	2012
	<b>Chinese Chemical Society</b>	
	Silver Medalist nation-wide, the 25 <sup>th</sup> Chinese Chemistry Olympiad	2011
<b>SERVICES</b>	<b>Reviewer for Journals</b>	
	IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)	2023 - present
	IEEE Transactions on Visualization and Computer Graphics (TVCG)	2024 - present
	International Journal of Computer Vision (IJCV)	2023 - present
	ACM Computing Surveys	2024 - present
	<b>Reviewer for International Conferences</b>	
	IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)	2022 - present
	International Conference on Computer Vision (ICCV)	2023 - present
	European Conference on Computer Vision (ECCV)	2024 - present
	Neural Information Processing Systems (NeurIPS)	2022 - present
	International Conference on Machine Learning (ICML)	2022 - present
	International Conference on Learning Representations (ICLR)	2023 - present
	Annual Conference of the European Association for Computer Graphics (EG)	2024 - present
	AAAI Conference on Artificial Intelligence (AAAI)	2023
	IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)	2024