XIAOMING ZHAO

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 Al Lab, Bellevue, WA, USA

Machine Learning Researcher Intern (with Boqing Gong) 05/2018 - 08/2018

Publications

[14] Studying Classifier(-Free) Guidance From a Classifier-Centric Perspective. **Xiaoming Zhao** and Alexander G. Schwing.

arXiv, 2025.

[13] 3D Shape Tokenization via Latent Flow Matching. Jen-Hao Rick Chang, Yuyang Wang, Miguel Ángel Bautista, Jiatao Gu, Xiaoming Zhao, Joshua M. Susskind, Oncel Tuzel 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 Gaussianson-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
	IllumiNeRF: 3D Relighting without Inverse Rendering	
	Google	07/2024
	Towards Automatic 3D-Consistent Content Generation	
	Adobe Research	03/2024
	Pseudo-Generalized Dynamic View Synthesis from a Video	
	Apple	06/2024
	Google	01/2024
	Generative Multiplane Images	
	Meta	08/2022
Teaching	University of Illinois Urbana-Champaign	
	CS588: Autonomous Vehicle System Engineering	Fall 2021
	CS446/ECE449: Machine Learning	Spring 2021
	CS440/ECE448: Artificial Intelligence CS498AML: Applied Machine Learning	Fall 2020 Spring 2019
	CS598BL: Special Topics on Adversarial Machine Learning	Fall 2018
Awards and Honors	University of Illinois Urbana-Champaign	
	University nomination (one of three) for 2023 Apple Scholars in AI/ML	2022
	Graduate Student SSBG Fellowship	2020
	University of Science and Technology of China	
	Outstanding Graduates	2016
	Outstanding Undergraduate Scholarship Seagate Scholarship	2013, 2015 2014
	Outstanding Freshman Scholarship	2012
	Ministry of Education, China	
	Honorably received waiver for the National College Entrance Exam	2012
	Chinese Chemical Society	
	Silver Medalist nation-wide, the $25^{\rm th}$ Chinese Chemistry Olympiad	2011
Services	Reviewer for Journals	
	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) ACM Computing Surveys	2023 - present 2024 - present
	Reviewer for International Conferences	2024 present
	IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)	2022 - present
	International Conference on Computer Vision (ICCV)	2022 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