

# 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 **Apple**, Cupertino, CA, USA  
Research Scientist @ Foundation Model (AFM) 02/2026 - present  
Research Scientist @ Machine Learning Research (MLR) 12/2024 - 02/2026  
**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 [16] Velox: Learning Representations of 4D Geometry and Appearance.  
Anagh Malik, Dorian Chan, **Xiaoming Zhao** David B. Lindell, Oncel Tuzel, Jen-Hao Rick Chang.  
In *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2026.  
[15] LiTo: Surface Light Field Tokenization.  
Jen-Hao Rick Chang\*, **Xiaoming Zhao**\*, Dorian Chan, Oncel Tuzel.  
(\* indicates equal contribution)  
In *International Conference on Learning Representations (ICLR)*, 2026.

- [14] Studying Classifier(-Free) Guidance From a Classifier-Centric Perspective.  
**Xiaoming Zhao** and Alexander G. Schwing.  
In *AAAI Conference on Artificial Intelligence (AAAI)*, 2026.
- [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 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 Col-  
burn.  
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 Nav-  
igation.  
**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.  
In *Research in Computational Molecular Biology (RECOMB)*, 2019.
- [2] Integrating Thermodynamic and Sequence Contexts Improves Protein-RNA Binding Pre-  
diction.  
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.

**PATENTS** [1] Relightable 3D Reconstruction and View Synthesis.  
Philipp Henzler, Ricardo Martin Brualla, **Xiaoming Zhao**, Pratul Preeti Srinivasan, Dor Verbin, Keunhong Park.  
*US Patent 20250378633A1 (pending)*, 2025.

**AWARDS AND HONORS** **Professional Services**  
CVPR Outstanding Reviewer 2025

**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 2013, 2015  
Seagate Scholarship 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<sup>th</sup> Chinese Chemistry Olympiad 2011

**SERVICES** **Area Chair for International Conferences**  
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) 2026

**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) 2023 - present  
ACM Computing Surveys 2024 - present

**Reviewer for International Conferences**  
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  
ACM SIGGRAPH 2026 - present  
ACM SIGGRAPH Asia 2025 - present  
Annual Conference of the European Association for Computer Graphics (EG) 2024 - present  
AAAI Conference on Artificial Intelligence (AAAI) 2023, 2026  
IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) 2024

**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 Fall 2020

CS498AML: Applied Machine Learning Spring 2019

CS598BL: Special Topics on Adversarial Machine Learning Fall 2018