




# XIAOMING ZHAO

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 <https://xiaoming-zhao.com/>

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 - Present  
Advisor: Prof. Alexander Schwing  
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 **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 [11] 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.  
[10] 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.  
[9] 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.

- [8] 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.
- [7] 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.
- [6] 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)**.
- [5] Initialization and Alignment for Adversarial Texture Optimization.  
**Xiaoming Zhao**, Zhizhen Zhao, Alexander G. Schwing.  
In *European Conference on Computer Vision (ECCV)*, 2022.
- [4] 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.
- [3] 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.
- [2] 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.
- [1] Integrating Thermodynamic and Sequence Contexts Improves Protein-RNA Binding Prediction.  
Yufeng Su, Yunan Luo, **Xiaoming Zhao**, Yang Liu, Jian Peng.  
*PLOS Computational Biology*, 2019.

## WORKSHOPS

- [2] Learning from Synthesized Demonstrations.  
**Xiaoming Zhao**, Yang Liu, Jian Peng.  
In *ICML Workshop on Learning in Artificial Open Worlds (ICML-W)*, 2020.
- [1] Approximation Gradient Error Variance Reduced Optimization.  
Wei-Ye Zhao, Yang Liu, **Xiaoming Zhao**, Jie-Lin Qiu, Jian Peng.  
In *AAAI Workshop on Reinforcement Learning in Games (AAAI-W)*, 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
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### Towards Automatic 3D-Consistent Content Generation

Adobe Research	03/2024
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### **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

## **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 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**

### **Reviewing 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

### **Reviewing 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  
AAAI Conference on Artificial Intelligence (AAAI) 2023  
IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) 2024