

Zhixing Zhang

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Education

Rutgers, The State University of New Jersey – New Brunswick	Piscataway, NJ, USA
<i>Ph.D. Student</i> in Computer Science	09/2021 – Present
Tsinghua University	Beijing, China
<i>B.Eng.</i> in Materials Science and Engineering	08/2015 – 07/2019
<i>Minor</i> in Computer Application	08/2016 – 07/2019

Experience

Generative AI, Meta	Menlo Park, CA, USA
<i>Research Scientist Intern.</i> Works with: Bichen Wu, Licheng Yu	05/2023 – 01/2024
• Text-guided Video Inpainting with Diffusion Models [CVPR'24].	
Media Analytics, NEC Laboratories America	San Jose, CA, USA
<i>Research Intern.</i> Works with: Samuel Schulter	05/2022 – 08/2022
• Self-supervised Pre-training with Automotive Image-LiDAR Data.	
Computer Science, Rutgers University	Piscataway, NJ, USA
<i>Research Assistant in CBIM.</i> Advisor: Prof. Dimitris N. Metaxas	09/2021 – Present
• Text-guided Image Editing with Text-to-image Diffusion Models [CVPR'23].	
• Object Detection with Vision & Language Models [ECCV'22 , ICCV'23].	
• Optical Flow Estimation [CVPR'22].	
Kuaishou Technology	Beijing, China
<i>Machine Learning Engineer</i>	07/2019 – 08/2021
• Few-shot Human Motion Retargeting.	
• Real-time Facial Attribute Editing.	
• Architecture Design for Efficient Generative Adversarial Networks.	
• Hairstyle Transfer with Semantic-adaptive Generative Models.	
<i>Machine Learning Engineer Intern</i>	11/2018 – 07/2019
• Efficient Image Harmonization.	

Publications

(† indicates equal contributions)

- [1] **Zhixing Zhang**, Bichen Wu, Xiaoyan Wang, Yaqiao Luo, Luxin Zhang, Yinan Zhao, Peter Vajda, Dimitris Metaxas, Licheng Yu. “[AVID: Any-Length Video Inpainting with Diffusion Model](#).” Will appear in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*. 2024.
- [2] Shiyu Zhao, Samuel Schulter, Long Zhao, **Zhixing Zhang**, Vijay Kumar, Yumin Suh, Manmohan Chandraker, and Dimitris Metaxas. “[Improving Pseudo Labels for Open-Vocabulary Object Detection](#).” Will appear in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*. 2024.
- [3] Ligong Han, Song Wen, Qi Chen, **Zhixing Zhang**, Kunpeng Song, Mengwei Ren, Ruijiang Gao et al. “[ProxEdit: Improving Tuning-Free Real Image Editing With Proximal Guidance](#).” In *Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*, pp. 4291-4301. 2024.

- [4] Di Liu, Xiang Yu, Meng Ye, Qilong Zhangli, Zhuowei Li, **Zhixing Zhang**, and Dimitris N. Metaxas. “[Deformer: Integrating transformers with deformable models for 3d shape abstraction from a single image.](#)” In *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)*, pp. 14236-14246. 2023.
- [5] Samuel Schulter, Vijay Kumar, Yumin Suh, Konstantinos Dafnis[†], **Zhixing Zhang**[†], Shiyu Zhao[†], and Dimitris Metaxas. “[OmniLabel: A Challenging Benchmark for Language-Based Object Detection.](#)” In *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)*, pp. 11953-11962. 2023.
- [6] **Zhixing Zhang**, Ligong Han, Arnab Ghosh, Dimitris Metaxas, and Jian Ren. “[SINE: SINGle Image Editing with Text-to-Image Diffusion Models.](#)” In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 6027-6037. 2023.
- [7] Shiyu Zhao[†], **Zhixing Zhang**[†], Samuel Schulter, Long Zhao, Vijay Kumar, Anastasis Sathopoulos, Manmohan Chandraker, and Dimitris Metaxas. “[Exploiting Unlabeled Data with Vision and Language Models for Object Detection.](#)” In *European Conference on Computer Vision (ECCV)*, pp. 159-175. Cham: Springer Nature Switzerland, 2022.
- [8] Shiyu Zhao, Long Zhao, **Zhixing Zhang**, Enyu Zhou, and Dimitris Metaxas. “[Global Matching with Overlapping Attention for Optical Flow Estimation.](#)” In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 17592-17601. 2022.

Teaching

2023 SP CS 431 – Software Engineering
2022 FA CS 580 – Topics In Computers In Biomedicine
2022 SP CS 206 – Introduction to Discrete Structures II
2021 FA CS 205 – Introduction to Discrete Structures I

Technical Skills

Programming: Python, Java, MATLAB, C, C++
Frameworks: PyTorch, TensorFlow, OpenCV, OpenGL

Academic Services

Conference Reviewer:

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022, 2024.
- International Conference on Learning Representations (ICLR), 2024.
- Annual Conference on Neural Information Processing Systems (NeurIPS), 2023.
- European Conference on Computer Vision (ECCV), 2022.
- International Conference on Machine Learning (ICML), 2024.