Zhexiao Xiong

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BIOGRAPHY

I am a third-year CS Ph.D. candidate at Washington University in St. Louis(WashU), advised by **Dr. Nathan Jacobs**. My research lies broadly in computer vision and multi-modal learning, especially generative models and AIGC-related topics, including personalized text-to-image generation, image editing, cross-view & novel view synthesis. I am also interested in geometric computer vision and its combination with generative models.

EDUCATION

- **Washington University in St. Louis** — *2022.08 – 2027.05(Expected)*
  Ph.D. Candidate in Computer Science — St. Louis, MO, USA
  Advisor: Prof. Nathan Jacobs

- **Tianjin University** — *2018.09 – 2022.06*
  B.S. in Electrical and Information Engineering — Tianjin, China

WORK EXPERIENCE

- **OPPO US Research Center [🌐]** — *2024.05 – 2024.08*
  Research Intern — Palo Alto, CA, USA
  ○ Researched on 3D Reconstruction from Single-view image, use Large-language model(LLM)-based dreaming and move-and-lookaround strategy to generate both geometric and semantic consistent 3D scene.

- **OPPO Research Institute [🌐]** — *2022.02 – 2022.05*
  Research Intern — Beijing, China
  ○ Researched on image matting, proposed a framework to use human pose as guidance to achieve whole body matting.

- **Institute of Automation, Chinese Academy of Sciences, Beijing, China(CASIA) [🌐]** — *2021.01 – 2022.01*
  Research Intern — Beijing, China
  ○ Researched on model compression and network pruning, especially the application on Vision Transformers.

SELECTED PUBLICATIONS
C=CONFERENCE, J=JOURNAL, P=PRE-PRINT

[P.1] **Zhexiao Xiong**, Wei Xiong, Jing Shi, He Zhang, Yizhi Song, Nathan Jacobs. **GroundingBooth: Grounding Text-to-Image Customization**. *Arxiv Pre-print*.

[P.2] **Zhexiao Xiong**, Xin Xing, Scott Workman, Subash Khanal, Nathan Jacobs. **Mixed-View Panorama Synthesis using Geospatially Guided Diffusion**. *Arxiv Pre-print*.

[P.3] Feng Qiao, **Zhexiao Xiong**, Xinge Zhu, Yuexin Ma, Qiumeng He, Nathan Jacobs. **MCPDepth: Omnidirectional Depth Estimation via Stereo Matching from Multi-Cylindrical Panoramas**. *Arxiv Pre-print*.

[C.1] **Zhexiao Xiong**, Feng Qiao, Yu Zhang, Nathan Jacobs. **StereoFlowGAN: Co-training for Stereo and Flow with Unsupervised Domain Adaptation**. In *British Machine Vision Conference(BMVC), 2023*.

[C.2] Xin Xing, **Zhexiao Xiong**, Abby Stylianou, Srikumar Sastry, Liyu Gong, Nathan Jacobs. **Vision-Language Pseudo-Labels for Single-Positive Multi-Label Learning**. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops(CVPRW), 2024*.

[C.3] Subash Khanal, Eric Xing, Srikumar Sastry, Aayush Dhakal, **Zhexiao Xiong**, Adeel Ahmad, Nathan Jacobs. **PSM: Learning Probabilistic Embeddings for Multi-scale Zero-Shot Soundscape Mapping**. In *ACM Multimedia(ACM MM), 2024*.

[J.1] Nanfei Jiang, **Zhexiao Xiong**, Hui Tian, Xu Zhao, Xiaojie Du, Chaoyang Zhao, Jinqiao Wang. **PruneFaceDet: Pruning lightweight face detection network by sparsity training**. *Cognitive Computation and Systems, 2022*.

SERVICES

- **Reviewer:** ECCV(2024), NeurIPS(2024), ICLR(2025)

- **Teaching Services (WashU):** CSE 559A Computer Vision **(Teaching Assistant/Grader)**

TECHNICAL SKILLS

Programming: Python, C/C++, Java, Matlab
Deep Learning Frameworks: Pytorch, Tensorflow
Research Frameworks: Diffusion models, Transformer, GAN, 3DGS, NeRF, CNN, CLIP
Languages: English, Chinese