Curriculum Vitae

Dr. Xinxin Zuo

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Research Area

Computer Vision, Computer Graphics, Multimedia, Machine Learning

Education

- Oct. 2019 – present: Postdoctoral Fellow, University of Alberta & University of Guelph (Advisor: Dr. Li CHENG and Dr. Minglun GONG)

- Jan. 2017 – Oct. 2019: Ph.D at Gravity Lab, Department of Computer Science, University of Kentucky. (Advisor: Dr. Ruigang YANG)
  Graduate Research Assistant
  General GPA: 4.0/4.0

- May 2018 – Aug. 2018: Research Intern, AR/VR Lab, Baidu. (Mentor & Manager: Dr. Hui Qiao)

- May 2017 – Aug. 2017: Research Intern, Institute of Deep Learning (IDL), Baidu. (Mentor & Manager: Dr. Ruigang YANG)

- Sep. 2012 – Dec. 2016: Ph.D in Computer Science and Technology, Northwestern Polytechnical University. (Advisor: Dr. Jiangbin ZHENG)
  General GPA: 88.20/100, Rank: 1/21

- Oct. 2014 – Oct. 2016: Joint Ph.D student at Gravity Lab, Department of Computer Science, University of Kentucky. (Advisor: Dr. Ruigang YANG)

- 2011.9 – 2014.3: Master in Computer Application Technology, Northwestern Polytechnical University. (Advisor: Dr. Jiangbin ZHENG)
  General GPA: 91.35/100, Rank: 1/142

- 2007.9 - 2011.7: Bachelor in Computer Science and Technology, Northwestern Polytechnical University.
  General GPA: 92.03/100, Rank: 1/174

Publications

1. **Xinxin Zuo**, Sen Wang, Jiangbin Zheng, Zhigeng Pan, Ruigang Yang. Detailed Surface Geometry and Albedo Recovery from RGB-D Video Under Natural Illumination. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, 2019. (Accepted)

2. Hao Zhu, **Xinxin Zuo**, Sen Wang, Xun Cao, Ruigang Yang. Detailed Human Shape Estimation from a Single Image by Hierarchical Mesh Deformation. In *IEEE Conference on Computer Vision and Pattern Recognition(CVPR)*, 2019: 4491-4500. (Oral)

3. Sen Wang, **Xinxin Zuo**, Runxiao Wang, Ruigang Yang. A Generative Human-Robot Motion Retargeting Approach using a Single RGBD Sensor. *IEEE Access*, 2019: 51499-51512.

4. Sen Wang, Runxiao Wang, **Xinxin Zuo**, Weiwei Yu. Real-Time Artifact Compensation for Depth Images of Multi-frequency ToF. *Journal of Northwestern Polytechnical University*, 2019, 37(1):152-159. (In *Chinese*)

5. Sen Wang*, **Xinxin Zuo***, Chao Du, Runxiao Wang, Jiangbin Zheng, Ruigang Yang. Dynamic Non-Rigid Objects Reconstruction with a Single RGB-D Sensor. *Sensors*, 2018, 18(3): 886.

6. **Xinxin Zuo***, Sen Wang*, Jiangbin Zheng, Ruigang Yang. Detailed Surface Geometry and Albedo Recovery from RGB-D Video Under Natural Illumination. In *IEEE International Conference on Computer Vision* (*ICCV*), 2017: 3133-3142.

7. Sen Wang, **Xinxin Zuo**, Runxiao Wang, Fuhua Cheng, Ruigang Yang. A Generative Human-Robot Motion Retargeting Approach using a Single Depth Sensor. In *IEEE International Conference on Robotics and Automation* (*ICRA*), 2017: 5369-5376. (Spotlight)

8. **Xinxin Zuo**, Sen Wang, Jiangbin Zheng, Ruigang Yang. High-speed Depth Stream Generation from a Hybrid Camera. In *ACM International Conference on Multimedia* (*ACM MM*), 2016: 878-887. (Oral)

9. **Xinxin Zuo**, Chao Du, Sen Wang, Jiangbin Zheng, Ruigang Yang. Interactive Visual Hull Refinement for Specular and Transparent Object Surface Reconstruction. In *IEEE International Conference on Computer Vision* (*ICCV*), 2015: 2237-2245.

10. Jiangbin Zheng, **Xinxin Zuo**, Jinchang Ren, Sen Wang. Multiple Depth Maps Integration for 3D Reconstruction using Geodesic Graph Cuts. *International Journal of Software Engineering and Knowledge Engineering (IJSEKE)*, 2015, 25(3):473-492.

11. Sen Wang, **Xinxin Zuo**, Weiwei Yu, Runxiao Wang, Kurosh Madani. Towards robotic semantic segmentation of supporting surfaces. In *2015 IEEE International Conference on Computational Intelligence & Communication Technology (CICT 2015)*, 2015: 775-779.

12. **Xinxin Zuo**, Jiangbin Zheng. A Refined Weighted Mode Filtering Approach for Depth Video Enhancement. In *International Conference on Virtual Reality and Visualization (ICVRV)*, 2013: 138-144.

Selected Awards & Scholarship

- Research Assistantship, University of Kentucky, 2017.01 – 2019.10
- IEEE *CVPR* Doctoral Consortium, 2019
- Thaddeus B. Curtz Memorial Scholarship, University of Kentucky, 2018
- ACM student travel grants (for *ACM MM*), 2016
- The National Scholarship, 2008-2011.
- Excellent Bachelor's Degree Thesis, NPU, 2011
- Outstanding Graduate Student, NPU, 2011.
- Excellent Student Scholarship, First Prize, NPU, 2008-2011 & 2013-2015.
- China Undergraduate Advanced Mathematics Contest, Second Prize, Shaanxi competition area, 2008.

Professional Service

- Reviewer for
  - IEEE TPAMI, IEEE TIP, IJCV
  - Journal of Biomechanics, Machine Vision and Applications
- Reviewers of
  - CVPR 2016-2020, ICCV 2017, 2019; ECCV 2018, 2020; AAAI 2020; IJCAI-PRICAI 2020; ICASSP 2020; BMVC 2019; ACCV 2018; Pacific Graphics 2016, 2019

Talks

- "High-speed Depth Stream Generation from a Hybrid Camera", ACM MM oral, Amsterdam, Netherlands, Oct. 2016
- "Interactive Visual Hull Refinement for Specular and Transparent Object Surface Reconstruction", Keeping Current Seminar, University of Kentucky, Oct. 2015

Skills

- Skillful in MATLAB/Python/C/C++ Programming, experienced in several development projects. Handle some basic development function libraries, such as OpenCV, OpenGL and Pytorch.
- Familiar with basic theories and algorithms in Computer Vision, Computer Graphics, Multimedia and Machine Learning.