

Jun Gao

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Education

Department of Computer Science, University of Toronto
PhD. in Computer Science

Jan. 2020 - Present
Advisor: Prof. Sanja Fidler

Department of Computer Science, University of Toronto
MSc. in Computer Science

Sep. 2018 - Jan. 2020
Advisor: Prof. Sanja Fidler

School of EECS, Peking University
BSc. in Computer Science

Sep. 2014 - Jul. 2018
Advisor: Prof. Liwei Wang

Publications

17. *GET3D: A Generative Model of High Quality 3D Textured Shapes Learned from Images*
Jun Gao, Tianchang Shen, Zian Wang, Wenzheng Chen, Kangxue Yin, Daiqing Li, Or Litany, Zan Gojcic, Sanja Fidler
In Conference on Neural Information Processing Systems (**NeurIPS**), 2022
16. *Extracting Triangular 3D Models, Materials, and Lighting From Images*
Jacob Munkberg, Jon Hasselgren, Tianchang Shen, Jun Gao, Wenzheng Chen, Alex Evans, Thomas Müller, Sanja Fidler
In Computer Vision and Pattern Recognition (**CVPR**), 2022, **Oral**
15. *Deep Marching Tetrahedra: a Hybrid Representation for High-Resolution 3D Shape Synthesis*
Tianchang Shen, Jun Gao, Kangxue Yin, Ming-Yu Liu and Sanja Fidler
In Conference on Neural Information Processing Systems (**NeurIPS**), 2021
14. *DIB-R++: Learning to Disentangle Material from Lighting Using a Deferred Image-based Renderer*
Wenzheng Chen, Joey Litalien, Jun Gao, Zian Wang, Clement Fuji Tsang, Sameh Khamis, Or Litany, Sanja Fidler
In Conference on Neural Information Processing Systems (**NeurIPS**), 2021
13. *3DStyleNet: Creating 3D Shapes with Geometric and Texture Style Variations*
Kangxue Yin, Jun Gao, Maria Shugrina, Sameh Khamis, Sanja Fidler
In International Conference on Computer Vision (**ICCV**), 2021, **Oral**
12. *DatasetGAN: Efficient labeled data factory with minimal human effort*
Yuxuan Zhang*, Huan Ling*, Jun Gao, Kangxue Yin, Jean-Francois Lafleche, Adela Barriuso, Antonio Torralba, Sanja Fidler
In Computer Vision and Pattern Recognition (**CVPR**), 2021, **Oral**
11. *Image GANs meet Differentiable Rendering for Inverse Graphics and Interpretable 3D Neural Rendering*
Yuxuan Zhang*, Wenzheng Chen*, Huan Ling, Jun Gao, Yinan Zhang, Antonio Torralba, Sanja Fidler
In International Conference on Learning Representations (**ICLR**), 2021, **Oral**
10. *Learning Deformable Tetrahedral Meshes for 3D Reconstruction*
Jun Gao, Wenzheng Chen, Tommy Xiang, Alec Jacobson, Morgan McGuire, Sanja Fidler
In Conference on Neural Information Processing Systems (**NeurIPS**), 2020
9. *Beyond Fixed Grid: Learning Geometric Image Representation with a Deformable Grid*
Jun Gao, Zian Wang, Jinchen Xuan and Sanja Fidler
In European Conference on Computer Vision (**ECCV**), 2020

8. *Interactive Annotation of 3D Object Geometry using 2D Scribbles*
Frank Shen*, **Jun Gao***, Amlan Kar and Sanja Fidler
In European Conference on Computer Vision (**ECCV**), 2020
 7. *ScribbleBox: Interactive Annotation Framework for Video Object Segmentation*
Bowen Chen*, Huan Ling*, Xiaohui Zeng, **Jun Gao**, Ziyue Xu, Sanja Fidler
In European Conference on Computer Vision (**ECCV**), 2020
 6. *Learning to Predict 3D Objects with an Interpolation-based Differentiable Renderer*
Wenzheng Chen, **Jun Gao***, Huan Ling*, Edward J. Smith*, Jaakko Lehtinen, Alec Jacobson, Sanja Fidler
In Conference on Neural Information Processing Systems (**NeurIPS**), 2019
 5. *Fast Interactive Object Annotation with Curve-GCN*
Huan Ling*, **Jun Gao***, Amlan Kar, Wenzheng Chen, Sanja Fidler
In Computer Vision and Pattern Recognition (**CVPR**), 2019
 4. *Representation Problem in Training Natural Language Generation Models*
Jun Gao*, Di He*, Xu Tan, Tao Qin, Liwei Wang, Tie-Yan Liu
In International Conference on Learning Representations (**ICLR**), 2019
 3. *DeepPrimitive: Image Decomposition by Layered Primitive Detection*
Jiahui Huang, **Jun Gao**, V. G.Subramanian, Hao Su, Yin Liu, Chengcheng Tang, Shi-Min Hu, Leonidas J. Guibas
In Computational Visual Media (**CVM**), 2018
 2. *Learning to Navigate for Fine-grained Classification*
Ze Yang, Tiange Luo, Dong Wang, Zhiqiang Hu, **Jun Gao**, Liwei Wang
In European Conference on Computer Vision (**ECCV**), 2018
 1. *Dropout Training, Data-dependent Regularization and Excess Risks*
Wenlong Mou, Yuchen Zhou, **Jun Gao**, Liwei Wang
In International Conference on Machine Learning (**ICML**), 2018
- * denotes equal contribution

Preprints

2. *Mimicking the In-Camera Color Pipeline for Camera-Aware Object Compositing*
Jun Gao, Xiao Li, Liwei Wang, Stephen Lin
(Arxiv pre-print 1903.11248)
1. *DeepSpline: Data-Driven Reconstruction of Parametric Curves and Surfaces*
Jun Gao, Chengcheng Tang, V. G.Subramanian, Jiahui Huang, Hao Su, and Leonidas J. Guibas
(Arxiv pre-print 1901.03781)

Research Experiences

NVIDIA <i>NVIDIA AI Lab</i>	Research Scientist	Nov. 2019 - Present Supervisor: Prof. Sanja Fidler
NVIDIA <i>NVIDIA AI Lab</i>	Research Intern	Oct. 2018 - Nov. 2019 Supervisor: Prof. Sanja Fidler
University of Toronto <i>Machine Learning Group</i>	Graduate Researcher	Sep. 2018 - Present Supervisor: Prof. Sanja Fidler
Microsoft Research Asia <i>Machine Learning Group</i>	Research Intern	Feb. 2018 - May. 2018 Supervisor: Dr. Tao Qin and Di He
Microsoft Research Asia <i>Internet Graphics Group</i>	Research Intern	Sep. 2017 - Feb. 2018 Supervisor: Dr. Stephen Lin

