Guanying Chen

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Github: https://github.com/guanyingc
Google Scholar Profile

Education

The University of Hong Kong (HKU), Hong Kong SAR, China — Sep. 2016 – Jan. 2021

Ph.D. Computer Science

- Supervisor: Prof. Kenneth K. Y. Wong
- PhD Dissertation: Single-view Analysis of Non-Lambertian Objects based on Deep Learning

Sun Yat-sen University (SYSU), Guangzhou, China — Sep. 2012 – Jun. 2016

B.Eng. Automation

- GPA: 4.2/5.0; Rank: 1/58
- Outstanding Graduate

Working/Research Experience

- Associate Professor at School of Cyber Science and Technology, Sun Yat-sen University — Mar 2024 - Present
- Research Assistant Professor at The Chinese University of Hong Kong (Shenzhen) — Oct 2021 - Mar 2024
- Senior Research Developer at Baidu VIS Department — Feb 2021 - Sep 2021
- Research Intern at Alibaba DAMO Academy, working with Prof. Lei Zhang — Dec 2019 - Nov 2020
- Research Intern at Osaka University, working with Prof. Yasuyuki Matsushita and Prof. Boxin Shi — Jun 2019 - Nov 2019
- Research Intern at SenseTime — Jun 2016 - Aug 2016

Publications (Google Scholar)

Conferences: CVPR (9), ICCV (5), ECCV (7), NeurIPS (2), SIGGRPAH (1) ——Orals x4, Highlights/Spotlights x3
Journals: TPAMI (1), IJCV (1), TIP (1), TVCG (1)
(# corresponding author, * equal contribution)

[1] **[TVCG 2025]** *CloseUpShot: Close-up Novel View Synthesis from Sparse-views via Point-conditioned Diffusion Model*, IEEE Transactions on Visualization and Computer Graphics (TVCG), 2025
Yuqi Zhang, **Guanying Chen**#, Jiaxing Chen, Chuanyu Fu, Chuan Huang, Shuguang Cui

[2] **[ICCV 2025]** *RobustSplat: Decoupling Densification and Dynamics for Transient-Free 3DGS*, International Conference on Computer Vision (ICCV), Honolulu, Hawaii, 2025
Chuanyu Fu, Yuqi Zhang, Kunbin Yao, **Guanying Chen**#, Yuan Xiong, Chuan Huang, Shuguang Cui, Xiaochun Cao#

[3] **[ICCV 2025]** *LHM: Animatable Human Reconstruction from a Single Image in One Second*, International Conference on Computer Vision (ICCV), Honolulu, Hawaii, 2025
Lingteng Qiu, Xiaodong Gu, Peihao Li, Qi Zuo, Weichao Shen, Junfei Zhang, Kejie Qiu, Weihao Yuan, **Guanying Chen**#, Zilong Dong#, Liefeng Bo

[4] **[CVPR 2025]** *AniGS: Animatable Gaussian Avatar from a Single Image with Inconsistent Gaussian Reconstruction*, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Nashville, TN, USA, 2025
Lingteng Qiu, Shenhao Zhu, Qi Zuo, Xiaodong Gu, Yuan Dong, Junfei Zhang, Chao Xu, Zhe Li, Weihao Yuan, Liefeng Bo, **Guanying Chen**#, Zilong Dong#

[5] **[CVPR 2024]** *Aerial Lifting: Neural Urban Semantic and Building Instance Lifting from Aerial Imagery*, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Seattle, WA, USA, 2024.
Yuqi Zhang, **Guanying Chen**#, Jiaxin Chen, Shuguang Cui.

[6] **[CVPR 2024]** *RichDreamer: A Generalizable Normal-Depth Diffusion Model for Detail Richness in Text-to-3D*, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Seattle, WA, USA, 2024 (**Highlight**).
Lingteng Qiu*, **Guanying Chen***, Xiaodong Gu*, Qi Zuo, Mutian Xu, Yushuang Wu, Weihao Yuan, Zilong Dong, Liefeng Bo, Xiaoguang Han

[7] **[CVPR 2023]** *REC-MV: REconstructing 3D Dynamic Cloth from Monocular Videos*. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Vancouver, Canada, 2023
Lingteng Qiu*, **Guanying Chen***, Jiapeng Zhou, Mutian Xu, Junle Wang, Xiaoguang Han.

[8] **[TPAMI 2022]** *Deep Photometric Stereo for Non-Lambertian Surfaces*, IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 44(1):129-142, January 2022.
Guanying Chen, Kai Han, Boxin Shi, Yasuyuki Matsushita, Kwan-Yee K. Wong.

[9] **[NeurIPS 2022]** *S^3-NeRF: Neural Reflectance Field from Shading and Shadow under a Single Viewpoint*, Conference on Neural Information Processing Systems (NeurIPS), New Orleans, Louisiana, USA, 2022.
Wenqi Yang, **Guanying Chen**[#], Chaofeng Chen, Zhenfang Chen, Kwan-Yee K. Wong.

[10] **[ECCV 2022]** *PS-NeRF: Neural Inverse Rendering for Multi-view Photometric Stereo*, European Conference on Computer Vision (ECCV), Tel Aviv, 2022.
Wenqi Yang, **Guanying Chen**[#], Chaofeng Chen, Zhenfang Chen, Kwan-Yee K. Wong.

[11] **[ICCV 2021]** *HDR Video Reconstruction: A Coarse-to-fine Network and A Real-world Benchmark Dataset*, International Conference on Computer Vision (ICCV), Virtual Conference, 2021.
Guanying Chen, Chaofeng Chen, Shi Guo, Zhetong Liang, Kwan-Yee K. Wong, Lei Zhang.

[12] **[ECCV 2020]** *What is Learned in Deep Uncalibrated Photometric Stereo?*, European Conference on Computer Vision (ECCV), Virtual Conference, 2020.
Guanying Chen, Michael Waechter, Boxin Shi, Kwan-Yee K. Wong, Yasuyuki Matsushita.

[13] **[IJCV 2019]** *Learning Transparent Object Matting*, International Journal of Computer Vision (IJCV), 127(10): 1527-1544, August 2019.
Guanying Chen*, Kai Han*, Kwan-Yee K. Wong.

[14] **[CVPR 2019]** *Self-calibrating Deep Photometric Stereo Networks*, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Long Beach, CA, USA, 2019 (**Oral Presentation**).
Guanying Chen, Kai Han, Boxin Shi, Yasuyuki Matsushita, Kwan-Yee K. Wong.

[15] **[ECCV 2018]** *PS-FCN: A Flexible Learning Framework for Photometric Stereo*, European Conference on Computer Vision (ECCV), Munich, Germany, 2018.
Guanying Chen, Kai Han, Kwan-Yee K. Wong.

[16] **[CVPR 2018]** *TOM-Net: Learning Transparent Object Matting from a Single Image*, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Salt Lake City, UT, USA, 2018 (**Spotlight Presentation**).
Guanying Chen*, Kai Han*, Kwan-Yee K. Wong.

[17] **[3DV 2025]** *Photometric Inverse Rendering: Shading Cues Modeling and Surface Reflectance Regularization*, International Conference on 3D Vision (3DV), 2025.
Jingzhi Bao, **Guanying Chen**[#], Shuguang Cui.

[18] **[PR 2025]** *Efficient Large-scale Scene Representation with a Hybrid of High-resolution Grid and Plane Features*, Pattern Recognition (PR), 2025.
Yuqi Zhang, **Guanying Chen**[#], Shuguang Cui.

[19] **[ACCV 2022]** *Neural Deformable Voxel Grid for Fast Optimization of Dynamic View Synthesis*, Asia Conference on Computer Vision (ACCV), Macau, 2022. (**Oral Presentation**)
Xiang Guo*, **Guanying Chen***, Yuchao Dai, Xiaoqing Ye, Jiadai Sun, Xiao Tan, Errui Ding.

[20] **[AAAI 2026]** *HouseTune: Two-Stage Floorplan Generation with LLM Assistance*, Annual AAAI Conference on Artificial Intelligence (AAAI), 2025
Ziyang Zong, **Guanying Chen**, Zhaohuan Zhan, Fengcheng Yu, Guang Tan

[21] **[NeurIPS 2025]** *Let Them Talk: Audio-Driven Multi-Person Conversational Video Generation*, Conference on Neural Information Processing Systems (NeurIPS), 2025
Zhe Kong, Feng Gao, Yong Zhang, Zhuoliang Kang, Xiaoming Wei, Xunliang Cai, **Guanying Chen**, Wenhan Luo

[22] **[ICCV 2025]** *MaterialMVP: Illumination-Invariant Material Generation via Multi-view PBR Diffusion*, International Conference on Computer Vision (ICCV), Honolulu, Hawaii, 2025 (**Highlight**)
Zebin He, Mingxin Yang, Shuhui Yang, Yixuan Tang, Tao Wang, Kaihao Zhang, **Guanying Chen**, Lliu Yuhong, Jie Jiang, Chunchao Guo, Wenhan Luo

[23] **[SIGGRAPH 2025]** *DAM-VSR: Disentanglement of Appearance and Motion for Video Super-Resolution*, ACM SIGGRAPH Conference, 2025
Zhe Kong, Le Li, Yong Zhang, Feng Gao, Shaoshu Yang, Tao Wang, Kaihao Zhang, Zhuoliang Kang, Xiaoming Wei, **Guanying Chen**, Wenhan Luo

[24] **[ECCV 2024]** *SphereHead: Stable 3D Full-head Synthesis with Spherical Tri-plane Representation*, European Conference on Computer Vision (ECCV), 2024. (**Oral Presentation**)
Heyuan Li, Ce Chen, Tianhao Shi, Yuda Qiu, Sizhe An, **Guanying Chen**, Xiaoguang Han

[25] **[ECCV 2024]** *OMG: Occlusion-friendly Personalized Multi-concept Generation in Diffusion Models*, European Conference on Computer Vision (ECCV), 2024.

Zhe Kong, Yong Zhang, Tianyu Yang, Tao Wang, Kaihao Zhang, Bizhu Wu, **Guanying Chen**, Wei Liu, Wenhan Luo.

[26] **[ECCV 2024]** *DreamDissector: Learning Disentangled Text-to-3D Generation from 2D Diffusion Priors*, European Conference on Computer Vision (ECCV), 2024.
Zizheng Yan, Jiapeng Zhou, Fanpeng Meng, Yushuang Wu, Lingteng Qiu, Zisheng Ye, Shuguang Cui, **Guanying Chen**, Xiaoguang Han

[27] **[ICCV 2023]** *Forward Flow for Novel View Synthesis of Dynamic Scenes*, International Conference on Computer Vision (ICCV), Paris, France, 2023. (**Oral Presentation**)
Xiang Guo, Jiadai Sun, Yuchao Dai, **Guanying Chen**, Xiaoqing Ye, Xiao Tan, Errui Ding, Jingdong Wang.

[28] **[TIP 2023]** *Deep Face Video Inpainting via UV Mapping*, IEEE Transactions on Image Processing (TIP), 32:1145-1157, February 2023.
Wenqi Yang, Zhenfang Chen, Chaofeng Chen, **Guanying Chen**, Kwan-Yee K. Wong.

[29] **[CVPR 2023]** *MVImgNet: A Large-scale Dataset of Multi-view Images*, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Vancouver, Canada, 2023.
Xianggang Yu, Mutian Xu, Yidan Zhang, Haolin Liu, Chongjie Ye, Yushuang Wu, Zizheng Yan, Chenming Zhu, Zhangyang Xiong, Tianyou Liang, **Guanying Chen**, Shuguang Cui, Xiaoguang Han.

[30] **[IJCAI 2023]** *Non-Lambertian Multispectral Photometric Stereo via Spectral Reflectance Decomposition*, International Joint Conference on Artificial Intelligence (IJCAI), Macau, SAR, 2023.
Jipeng Lv, Heng Guo, **Guanying Chen**, Jinxiu Liang, Boxin Shi.

[31] **[ECCV 2022]** *Towards High-Fidelity Single-view Holistic Reconstruction of Indoor Scene*, European Conference on Computer Vision (ECCV), Tel Aviv, 2022.
Haolin Liu, Yujian Zheng, **Guanying Chen**, Shuguang Cui, Xiaoguang Han.

[32] **[CVPR 2022]** *JIFF: Jointly-aligned Implicit Face Function for High Fidelity Single View Clothed Human Reconstruction*, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), New Orleans, Louisiana, USA, 2022. (**Oral Presentation**)
Yukang Cao, **Guanying Chen**, Kai Han, Wenqi Yang, Kwan-Yee K. Wong.

[33] **[CVPR 2022]** *ETHSeg: An Amodel Instance Segmentation Network and a Real-world Dataset for X-Ray Waste Inspection*, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), New Orleans, Louisiana, USA, 2022.
Lingteng Qiu, Zhangyang Xiong, Xuhao Wang, Kenkun Liu, Yihan Li, **Guanying Chen**, Xiaoguang Han, Shuguang Cui.

Research Grants

- **PI**, National Natural Science Foundation of China (NSFC), General Project, 500,000 CNY (2025-2028)
- **PI**, National Natural Science Foundation of China (NSFC), Young Scientists Project, 300,000 CNY (2023-2025)
- **PI**, Guangdong Natural Science Foundation, General Project, 100,000 CNY (2025-2027)
- **PI**, Shenzhen Science and Technology Program, Young Scientists Project, 300,000 CNY (2023-2024)

Professional Services

- Area Chair: CVPR 2026, NeurIPS 2024/2025
- Editorial Board: Neural Networks
- Conference Reviewer: CVPR, ICCV, ECCV, NeurIPS, ICML, ICLR, SIGGRAPH
- Journal Reviewer: TPAMI, IJCV, TVCG, TKDE, TMM, RAL, PR, C&G, GMOD, IMAVIS, RCIM
- Member of the CSIG-3DV Special Committee
- Member of Vision And Learning Seminar (Valse) Executive Area Chair Committee
- Member of Graphics And Mixed Environment Symposium (GAMES) Executive Committee

Teaching Experience

- School of Cyber Science and Technology, SYSU, Computer Networking — 2025 Fall, 2024 Fall
- School of Cyber Science and Technology, SYSU, Academic Writing — 2025 Spring
- School of Cyber Science and Technology, SYSU, Training in Innovation and Practice — 2025 Spring
- Department of Computer Science, HKU, TA, COMP7404 Computational Intelligence and Machine Learning — 2016 Fall

Honors and Awards

- Major Talent Programs of Guangdong Province, Young Talents — Guangdong (2024)
- Top Reviewers in NeurIPS 2023 — NeurIPS (2023)
- CCF Excellent Graphics Open Source Dataset (MVImgNet) — CCF CAD&CD (2023)

- Global Top 100 Chinese Rising Stars in Artificial Intelligence — Baidu Scholar (2021)
- M. Braun Postgraduate Prizes — HKU (2018-2019)
- Hong Kong and China Gas Company Limited Postgraduate Prize — HKU (2018-2019)
- University Postgraduate Fellowship (UPF) — HKU (2016-2020)
- Outstanding Graduate — SYSU (2016)