

Chen Gao

Research Scientist

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— Employment

Meta Reality Labs Research Scientist, 3D/4D Reconstruction	May 2022 - Present
Google VisCam Team, Host: Miki Rubinstein Research Intern, Panoramic Video	Jun 2021 - Sep 2021
Google Camera Algorithm Team, Host: YiChang Shih Research Intern, Portrait NeRF	Jun 2020 - Sep 2020
Facebook Computational Photography Team, Host: Johannes Kopf Research Intern, Video Completion	Jun 2019 - Sep 2019

— Education

Ph.D. in Computer Engineering at Virginia Tech Advisor: Jia-Bin Huang	2018 - 2022
M.Sc. in Electrical and Computer Engineering at University of Michigan Advisor: Raj Rao Nadakuditi	2015 - 2017
B.Sc. in Electrical and Computer Engineering at Oregon State University Minor in Computer Science	2013 - 2015

— Product Impact

Hyperscape 🏠 Meta Reality Labs, An immersive, digital replica of the world	2023 - 2026
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— Publications

- [16] **Textured Gaussians for Enhanced 3D Scene Appearance Modeling**
CVPR 2025 🏠
Brian Chao, Hung-Yu Tseng, Lorenzo Porzi, **Chen Gao**, Tuotuo Li, Qinbo Li, Ayush Saraf, Jia-Bin Huang, Johannes Kopf, Gordon Wetzstein, Changil Kim
- [15] **Reflection-Aware Neural Radiance Fields**
SIGGRAPH Asia 2024 🏠
Chen Gao, Yipeng Wang, Changil Kim, Jia-Bin Huang, Johannes Kopf
- [14] **Modeling Ambient Scene Dynamics for Free-view Synthesis**
SIGGRAPH 2024 🏠
Meng-Li Shih, Jia-Bin Huang, Changil Kim, Rajvi Shah, Johannes Kopf, **Chen Gao**
- [13] **SpecNeRF: Gaussian Directional Encoding for Specular Reflections**
CVPR 2024 🏠
Li Ma, Vasu Agrawal, Haithem Turki, Changil Kim, **Chen Gao**, Pedro V. Sander, Michael Zollhöfer, Christian Richardt
- [12] **OmnimatteRF: Robust Omnimatte with 3D Background Modeling**
ICCV 2023 🏠
Geng Lin, **Chen Gao**, Jia-Bin Huang, Changil Kim, Yipeng Wang, Matthias Zwicker, Ayush Saraf

- [11] **Progressively Optimized Local Radiance Fields for Robust View Synthesis**
CVPR 2023 🏠
Andreas Meuleman, Yu-Lun Liu, **Chen Gao**, Jia-Bin Huang, Changil Kim, Min H. Kim, Johannes Kopf
- [10] **Robust Dynamic Radiance Fields**
CVPR 2023 🏠
Yu-Lun Liu, **Chen Gao**, Andreas Meuleman, Hung-Yu Tseng, Ayush Saraf, Changil Kim, Yung-Yu Chuang, Johannes Kopf, Jia-Bin Huang
- [9] **Portrait Neural Radiance Fields from a Single Image**
arXiv 🏠
Chen Gao, Yichang Shih, Wei-Sheng Lai, Chia-Kai Liang, Jia-Bin Huang
- [8] **Dynamic View Synthesis from Dynamic Monocular Video**
ICCV 2021 🏠
Chen Gao, Ayush Saraf, Johannes Kopf, Jia-Bin Huang
- [7] **Flow-edge Guided Video Completion**
ECCV 2020 🏠
Chen Gao, Ayush Saraf, Jia-Bin Huang, Johannes Kopf
- [6] **DRG: Dual Relation Graph for Human-Object Interaction Detection**
ECCV 2020 🏠
Chen Gao, Jiarui Xu, Yuliang Zou, Jia-Bin Huang
- [5] **NAS-DIP: Learning Deep Image Prior with Neural Architecture Search**
ECCV 2020 🏠
Yun-Chun Chen*, **Chen Gao***, Esther Robb, Jia-Bin Huang
- [4] **Why Can't I Dance in the Mall? Learning to Mitigate Scene Bias in Action Recognition**
NeurIPS 2019 🏠
Jinwoo Choi, **Chen Gao**, Joseph Messou, Jia-Bin Huang
- [3] **iCAN: Instance-Centric Attention Network for Human-Object Interaction Detection**
BMVC 2018 🏠
Chen Gao, Yuliang Zou, and Jia-Bin Huang
- [2] **Augmented Robust PCA for Foreground-background Separation on Noisy, Moving Camera Video**
GlobalSIP 2017 🏠
Chen Gao, Brian E. Moore, Raj Rao Nadakuditi
- [1] **Panoramic Robust PCA for Foreground-Background Separation on Noisy, Free-Motion Camera Video**
TCI 2019 🏠
Chen Gao*, Brian E. Moore*, Raj Rao Nadakuditi