



CONTACT INFO **鞏炳辰**
 Sha Tin, Hong Kong

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- EDUCATION **The University of Hong Kong** 2016 - 2021
- Ph.D., Deep Learning in Computer Vision & Computer Graphics
 - Advisor: Prof. Yizhou Yu
 - Thesis: Local Structure Encoding and Representation in 2D and 3D Synthesis
- Zhejiang University**, Hangzhou, China 2012 - 2016
- B.Sc., Computer Science and Technology
 - Pursuit Science Class, Chu Kochen Honors College
- SKILLS
- *Hobbies*: Cycling, Photography, Linux Kernel Compilation
 - *PLs & Softwares*: C/C++, Python, MATLAB, Java, JavaScript, Assembly, Verilog
 - *Languages*: English (Proficient), Mandarin (Native), Cantonese (Conversational)
- EXPERIENCE **Postdoctoral Fellow @ The Chinese University of Hong Kong** 2022 - 2023
- Med-AIR Lab (with Dr. Qi Dou)
 - Conducted research in computer vision & graphics: implemented and extended 3D appearance and volumetric editing with implicit Neural Radiance Fields (NeRF)
 - Collaborated with PhDs and RAs in a project about surgical simulation with MPM
 - Drafted part of a research proposal for the General Research Fund from RGC 2023
- Visiting Scholar @ The Chinese University of Hong Kong (Shenzhen)** 2019 - 2021
- GAP Lab (with Dr. Xiaoguang Han)
 - Designed and led the development of a novel 3D-mesh-annotation framework for tackling unsupervised domain adaptation of shape reconstruction; with the target of Transferring ShapeNet to ScanNet
 - Proposed an novel neural networks for point cloud completion, which leverages the unoccupied points in point clouds; designed a neural network that learns from both the shape occupancy and emptiness, trained it with ShapeNet, and conducted qualitative and quantitative experiments on both synthetic and real data
- Research Intern @ Deepwise Inc., Beijing** July 2018 - Jan 2019
- Worked on semi-supervised learning for AI-aided medical image diagnosis
- Visiting Researcher @ Columbia University** 2015 - 2016
- Digital Video & Multimedia (DVMM) Lab (with Prof. Shih-Fu Chang)
 - Proposed an open source C++ library **Tamp**, integrating TensorFlow and Caffe, to reduce the computational costs of deep neural network models
 - Implemented Circulant and Toeplitz-like structured transforms under proposed **Tamp**
- Student @ The Middle School Attached to Northern Jiaotong University** 2006 - 2012
- Conducted an award-winning research project: Documents Confidential Cabinet Based on Mobile Phone Key, studied how to use mobile phone for two-factor authentication
 - Won multiple prizes in national and international robotics team competitions

TEACHING
EXPERIENCE

Teaching assistant @ HKU

2016 - 2021

- Discrete Mathematics (2021 Fall)
- Computer Game Design and Programming (2021 Spring)
- Advanced Topics in Computer Graphics (2019 Fall)
- Computer Organization (2019 Spring)
- Computer Graphics (2017 Fall)
- Programming Technologies and Tools (2017 Spring)

PUBLICATIONS

1. **Bingchen Gong***, Yuehao Wang*, Xiaoguang Han, and Qi Dou. SeamlessNeRF: Stitching Part NeRFs with Gradient Propagation. Accepted by SIGGRAPH Asia 2023 (SIGGRAPH Asia 2023 Sydney).
2. **Bingchen Gong***, Yuehao Wang*, Xiaoguang Han, and Qi Dou. RecolorNeRF: Layer Decomposed Radiance Field for Efficient Color Editing of 3D Scenes. In Proceedings of the 31st ACM International Conference on Multimedia (MM '23). Association for Computing Machinery, New York, NY, USA, 8004–8015.
3. Haoyu Ma*, **Bingchen Gong***, and Yizhou Yu. Structure-Aware Meta-Fusion for Image Super-Resolution. ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM) 18, no. 2 (2022): 1-25.
4. **Bingchen Gong**, Yinyu Nie, Yiqun Lin, Xiaoguang Han, and Yizhou Yu. ME-PCN: Point Completion Conditioned on Mask Emptiness. IEEE International Conference on Computer Vision (ICCV), October 2021.
5. Weifeng Ge*, **Bingchen Gong***, and Yizhou Yu. Image Super-Resolution via Deterministic-Stochastic Synthesis and Local Statistical Rectification. SIGGRAPH Asia 2018, Tokyo, December 2018 (ACM Transactions on Graphics, Vol 37, No 6, 2018).
6. **Bingchen Gong**, Brendan Jou, Felix Yu, and Shih-Fu Chang. Tamp: A Library for Compact Deep Neural Networks with Structured Matrices. In Proceedings of the 24th ACM international conference on Multimedia, pp. 1206-1209. 2016.
7. Zicheng Liao, Yizhou Yu, **Bingchen Gong**, and Lechao Cheng, audeosynth: Music-Driven Video Montage. SIGGRAPH 2015, Los Angeles, August 2015 (ACM Transactions on Graphics, Vol 34, No 4, 2015).

AWARDS AND
SCHOLAR-
SHIPS

- **Young Scholar Awards**
by Microsoft Research Asia. 2015
- **Honorable Mention**
in COMAP Interdisciplinary Contest in Modeling (ICM). 2015
- **First Award**
in Asia Student Supercomputer Challenge (ASC14). 2014
- **Top Talented Scholarship of Fundamental Science**
by Zhejiang University. 2013
- **Grand Award in CS & Special Award, Agilent**
in the Intel International Science and Engineering Fair (Intel ISEF). 2012
- **First Award**
in China Adolescents Science & Technology Innovation Contest (CASTIC). 2011

REFERENCES

Prof. Yizhou Yu

The University of Hong Kong
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Dr. Xiaohuang Han

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hanxiaoguang@cuhk.edu.cn