Hongbo Fu

Professor

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Research Interests

Computer Graphics (2003–), Human-Computer Interaction (2012–), Computer Vision (2018–)

Education

2002–2007	**Ph.D. in Computer Science**, *Hong Kong Univ. of Science & Technology*, Hong Kong.
1998–2002	**B.Sc. in Information Sciences**, *School of Mathematical Sciences, Peking Univ.*, China.
1999–2002	**B.Sc. in Economics**, *China Center of Economic Research, Peking Univ.*, China.

Academic Appointments

Hong Kong University of Science and Technology (HKUST)

Since 2024.06	**Professor**, *Division of Arts and Machine Creativity, Division of Emerging Interdisciplinary Areas (Joint Appointment: since 2024.09), Department of Computer Science and Engineering (Joint Appointment: since 2025.01), Thrust of Computational Media and Arts (GZ Campus) (Joint Appointment: since 2024.07).*

City University of Hong Kong (CityUHK)

2019.07–2024.06	**Professor**, *School of Creative Media*.
2014.07–2019.06	**Associate Professor**, *School of Creative Media*.
2009.01–2014.06	**Assistant Professor**, *School of Creative Media*.

Others

2020.01–2023.01	**Visiting Professor**, *Dept. of Computer Science and Technology, Tsinghua Univ.*, China.
2008.09–2009.01	**Postdoc Researcher**, *Dept. of Computer Graphics, MPI Informatik*, Germany.
2007.09–2008.08	**Postdoctoral Research Fellow**, *Dept. of Computer Science, Uni. of British Columbia*, Canada.

Administrative Appointments

2024.07–present	**Acting Head**, *Division of Arts and Machine Creativity*, HKUST.
2015.08–2020.08; 2021.01–06; 2021.11 –2022.08	**Associate Dean (Research)**, *School of Creative Media*, CityUHK.
2019.01–07	**Acting Dean**, *School of Creative Media*, CityUHK.

Honors & Awards

2025	**Top 2% Scientists Worldwide**, *Stanford/Elsevier*.
2025	**Inclusion in Technical Papers Trailer**, *Technical Papers*, ACM SIGGRAPH 2025.
2023	**The Outstanding Reviewer (232 out of 7000+ reviewers)**, *CVPR 2023*.
2016, 2022	**The President's Award**, *City University of Hong Kong*, Hong Kong.
2022	**The Silver Medal**, *Special Edition 2022 Inventions Geneva Evaluation Days (IGED)*, The International Exhibition of Inventions of Geneva.
2021	**The Most Influential Jittor Paper Award (Demonstration)**, *Jittor Developer Conference 2021*, China.
2021	**The Open-source Graphics Software Award**, *CAD & CG, CCF*, China.

2020	**SCM Research Award**, *School of Creative Media, City University of Hong Kong*, Hong Kong.
2020	**The Runner-up for the Open-source Graphics Software Award**, *CAD & CG, CCF*, China.
2020	**The Runner-up for the 2019 Best Paper Award**, *IEEE Computer Graphics & Applications* , IEEE Computer Society Publications Board.
2020	**Back Cover Image; Inclusion in Technical Papers Trailer**, *Proceedings of SIGGRAPH 2020*.
2019	**The Best Paper (Top 1%)**, *32nd ACM User Interface Software and Technology Symposium (UIST 2019)*, New Orleans, USA.
2018	**Recognition of Service Award (for Co-chairing Expressive 2018)**, ACM.
2016	**The Best Demo Honorable Mention**, *Symposium on Mobile Graphics and Interactive Applications, SIGGRAPH Asia 2016*, Macao, China.
2015	**The Best Paper**, *CAD/Graphics 2015*, Xi'an, China.
2015	**Associate Editor of the Year 2015**, *Computers & Graphics*, Elsevier.
2014	**Best Demo (Selected by Audience)**, *Emerging Technologies*, ACM SIGGRAPH Asia 2014, Shenzhen, China.
2014	**Excellence in Reviewing (for the year of 2012)**, *Computers & Graphics*, Elsevier.
2013	**Best Demo (Voted by Attendees)**, *Emerging Technologies*, ACM SIGGRAPH Asia 2013, Hong Kong.
2013	**Program Highlight**, *Emerging Technologies*, ACM SIGGRAPH Asia 2013, Hong Kong.
2011	**Program Highlight**, *Technical Papers*, ACM SIGGRAPH Asia 2011, Hong Kong.
2011	**Inclusion in Technical Papers Trailer**, *Technical Papers*, ACM SIGGRAPH Asia 2011, Hong Kong.
2010	**Program Highlight**, *Technical Papers*, ACM SIGGRAPH 2010, LA, USA.
2002–2007	**Postgraduate Studentship**, *Hong Kong University of Science & Technology*, Hong Kong.
2000	**First Class Scholarship (5 out of 160)**, *School of Mathematical Sciences, Peking University*, China.
2000	**Exceptional Student**, *School of Mathematical Sciences, Peking University*, China.

Selected Publications (with representative work highlighted in blue and (co-)supervised students/RAs/postdocs highlighted with an asterisk *)

Statistics

Citations	**Scopus**: Total: 7,202; H-index: 43
	Google Scholar: Total: 10,491; H-index: 54 (as of 31 Dec. 2025)
Papers	**TOG**: 32; **TVCG**: 45; **PAMI**: 4; **SIGGRAPH/SA - Conference Track**: 6; **CHI/UIST/IMWUT/VR**: 18 (Best Paper: 1); **CVPR/ICCV/ECCV/AAAI**: 18 (Oral/Highlight: 6)

Accepted for publication

TVCG 25   J. Leng*, H. Ye*, P. Xu, M.-L. Lam, and **H. Fu**. 2025. **GenFODrawing: Supporting Creative Found Object Drawing with Generative AI**. *IEEE Transactions on Visualization and Computer Graphics*. Accepted for publication.

TCSVT 25   Y. Wu, H. Xu, X. Tang, S. Yue, **H. Fu**, and X. Jin. 2025. **3DPortraitGAN: Learning One-Quarter Headshot 3D GANs from a Single-View Portrait Dataset with Diverse Body Poses**. *IEEE Transactions on Circuits and Systems for Video Technology*. Accepted for publication.

TVCG 25   X. Hu, P. Xu, J. Zhou, **H. Fu**, and H. Huang. 2025. **StructLayoutFormer: Conditional Structured Layout Generation via Structure Serialization and Disentanglement**. *IEEE Transactions on Visualization and Computer Graphics*. Accepted for publication.

TVCG 25   K. Jiang, F.-L. Liu, S-Y Chen, P. Wan, Y. Zhang, Y.-K. Lai, **H. Fu**, and L. Gao. 2025. **NeRF-FaceShop: Learning a Photo-realistic 3D-aware Generative Model of Animatable and Relightable Heads from Large-scale In-the-wild Videos**. *IEEE Transactions on Visualization and Computer Graphics*. Accepted for publication.

TVCG 25   L. Qu*, J. Shang, M.-L. Lam, and **H. Fu**. 2025. **Controllable Human Video Generation from Sparse Sketches**. *IEEE Transactions on Visualization and Computer Graphics*. Accepted for publication.

CVM 25   Q. Wang*, C. Xiao*, M. Lau, and **H. Fu**. 2025. **PartHOI: Part-based Hand-Object Interaction Transfer via Generalized Cylinders**. *Computational Visual Media*. Accepted for publication.

2026

CHI 26   B. Li*, L. Yuan, Z. Wang, and **H. Fu**. 2026. **SketchDynamics: Exploring Free-Form Sketches for Dynamic Intent Expression in Animation Generation**. *Proceedings of ACM SIGCHI 2026*. Article No. xx. (Acceptance rate: 25.3%).

2025

SIGGRAPH Asia 25 (TOG)   J. Zhou*, L. Qu* (joint first author), M.-L. Lam, and **H. Fu**. 2025. **From Rigging to Waving: 3D-Guided Diffusion for Natural Animation of Hand-Drawn Characters**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH Asia 2025)*. xx(y). Article No. xxx. (Acceptance rate: xx.x%).

SIGGRAPH Asia 25 (Conference)   J. Yang, B.-T. Zhang, F.-L. Liu, **H. Fu**, Y.-K. Lai, and L. Gao. 2025. **HumanLift: Single-Image 3D Human Reconstruction with 3D-Aware Diffusion Priors and Facial Enhancement**. *ACM SIGGRAPH Asia 2025 Conference Papers*. Article No. xx.

ICCV 25   L.-H. Chen, Z.-X. Zou, C. Liu, T. Jing, Y.-P. Cao, S.-S. Huang, **H. Fu**, and H. Huang. 2025. **GCRayDiffusion: Pose-Free Surface Reconstruction via Geometric Consistent Ray Diffusion**. *ICCV 2025*.

TVCG 25   X. Wang*, W. Zhang, C. Sandor, and **H. Fu**. 2025. **Real-and-Present: Investigating the Use of Life-Size 2D Video Avatars in HMD-Based AR Teleconferencing**. *IEEE Transactions on Visualization and Computer Graphics*. 31(9): 5626–5641.

TVCG 25   W. Su, C. Wang, C. Liu, F. Han, **H. Fu**, and J. Liao. 2025. **StyleRetoucher: Generalized Portrait Image Retouching with GAN Priors**. *IEEE Transactions on Visualization and Computer Graphics*. 31(9): 5089–5100.

TVCG 25   Z.-X. Zou, S.-S. Huang, Y.-P. Cao, T.-J. Mu, Y. Shan, **H. Fu**, and S.-H. Zhang. 2025. **GP-Recon: Online Monocular Neural 3D Reconstruction with Geometric Prior**. *IEEE Transactions on Visualization and Computer Graphics*. 31(9): 4790–4804.

TVCG 25   L. Qu*, J. Shang, H. Ye*, X. Han, and **H. Fu**. 2025. **Sketch2Human: Deep Human Generation with Disentangled Geometry and Appearance Constraints**. *IEEE Transactions on Visualization and Computer Graphics*. 31(9): 4480–4492.

SIGGRAPH 25 (Conference)   F.-L. Liu, S.-Y. Li, Y.-P. Cao, **H. Fu**, and L. Gao. 2025. **Sketch3DVE: Sketch-based 3D-Aware Scene Video Editing**. *ACM SIGGRAPH 2025 Conference Papers*. Article No. 152.

CVPR 25   F.-L. Liu, **H. Fu**, X. Wang, W. Ye, P. Wan, D. Zhang, and L. Gao. 2025. **SketchVideo: Sketch-based Video Generation and Editing**. *CVPR 2025*. (Acceptance rate: 22.1%).

CVPR 25   D. Liang, J. Jia, Y. Liu, Z. Ke, **H. Fu**, and R. W. H. Lay. 2025. **VODiff: Controlling Object Visibility Order in Text-to-Image Generation**. *CVPR 2025*. (Acceptance rate: 22.1%).

PAMI 25   Z. Hu*, X. Bai*, J. Shang, R. Zhang, J. Dong, X. Wang, G. Sun, **H. Fu**, and C.-L. Tai. 2025. **Voxel-Mesh Network for Geodesic-Aware 3D Semantic Segmentation of Indoor Scenes**. *IEEE Transactions on Pattern Analysis and Machine Intelligence*. 47(5): 3244–3256. (extended version of our ICCV 2021 paper).

PAMI 25   K. Jiang, S.-Y. Chen, F.-L. Liu, **H. Fu**, and L. Gao. 2025. **Towards High-quality and Disentangled Face Editing in a 3D GAN**. *IEEE Transactions on Pattern Analysis and Machine Intelligence*. 47(4): 2533–2544.

TVCG 25   Y. Jiang, P. Xu, C. Zhang, **H. Fu**, H. Lau, and W. Wang. 2025. **Region-aware Color Smudging**. *IEEE Transactions on Visualization and Computer Graphics*. 31(4): 1999–2011.

2024

SIGGRAPH Asia 24 (TOG)   L. Gao, J. Yang, B.-T. Zhang, J.-M. Sun, Y.-J. Yuan, **H. Fu**, and Y.-K. Lai. 2024. **Real-time Large-scale Deformation for Gaussian Splatting**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH Asia 2024)*. 43(6). Article No. 200. (Acceptance rate: xx.x%).

SIGGRAPH Asia 24 (Conference)   J. Zhou*, C. Xiao*, M.-L. Lam, and **H. Fu**. 2024. **DrawingSpinUp: 3D Animation from Single Character Drawings**. *ACM SIGGRAPH Asia 2024 Conference Papers*. Article No. 98.

SIGGRAPH Asia 24 (Conference)   Z. Kuang, Y. Yang, S. Dong, J. Ma, **H. Fu**, K. Zhou, and Y. Zheng. 2024. **OLAT Gaussians for Generic Relightable Appearance Acquisition**. *ACM SIGGRAPH Asia 2024 Conference Papers*. Article No. 13.

TVCG 24   D. Yu*, C. Xiao*, M. Lau, and **H. Fu**. 2024. **Sketch2Stress: Sketching with Structural Stress Awareness**. *IEEE Transactions on Visualization and Computer Graphics*. 30(10): 6851–6865.

CVM 24   S.-Y. Chen, Y.-R. Jiang, **H. Fu**, X. Han, Z. Liu, R. Li, and L. Gao. 2024. **DeepFaceReshaping: Interactive Deep Face Reshaping via Landmark Manipulation**. *Computational Visual Media (Special Issue of CVM 2023)*. Volume 10, pages 949–963.

Pacific Graphics 24 (CGF)   C. Xiao* and **H. Fu**. 2024. **CustomSketching: Sketch Concept Extraction for Sketch-based Image Synthesis and Editing**. *Computer Graphics Forum (Special issue of Pacific Graphics 2024)*. 43(7): e15247. (Acceptance rate: xx.x%).

TVCG 24   Z. Zhang, J. Chen, **H. Fu**, J. Zhao, S.-Y. Chen, and L. Gao. 2024. **Text2Face: Text-based Face Generation with Geometry and Appearance Control**. *IEEE Transactions on Visualization and Computer Graphics*. 30(9): 6481–6492.

TVCG 24   D. Yu*, M. Lau, L. Gao, and **H. Fu**. 2024. **Sketch Beautification: Learning Part Beautification and Structure Refinement for Sketches of Man-made Objects**. *IEEE Transactions on Visualization and Computer Graphics*. 30(9). 6533–6546.

SIGGRAPH 24 (TOG)   F.-L. Liu, **H. Fu**, Y.-K. Lai, and L. Gao. 2024. **SketchDream: Sketch-based Text-to-3D Generation and Editing**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH 2024)*. 43(4). Article No. 44. (Journal papers acceptance rate: 14.0%).

TVCG 24   Z. Luo, D. Du, H. Zhu, Y. Yu, **H. Fu**, and X. Han. 2024. **SketchMetaFace: A Learning-based Sketching Interface for High-fidelity 3D Character Face Modeling**. *IEEE Transactions on Visualization and Computer Graphics*. 30(8): 5260–5275.

TVCG 24   Q. Fu, S. He, X. Li, and **H. Fu**. 2024. **PlanNet: A Generative Model for Component-Based Plan Synthesis**. *IEEE Transactions on Visualization and Computer Graphics*. 30(8): 4739–4751.

TVCG 24   S.-K. Zhang, H. Tam, Y.-K. Li, K.-X. Ren, **H. Fu**, and S.-H. Zhang. 2024. **SceneDirector: Interactive Scene Synthesis by Simultaneously Editing Multiple Objects in Real-Time**. *IEEE Transactions on Visualization and Computer Graphics*. 30(8): 4558–4569.

TVCG 24   Q. Fu, F. Zhang, X. Li, and **H. Fu**. 2024. **Magic Furniture: Design Paradigm of Multi-function Assembly**. *IEEE Transactions on Visualization and Computer Graphics*. 30(7): 4068–4079.

TVCG 24   X. Wang, Q. Lv, G. Chen, J. Zhang, Z. Wei, J. Dong, **H. Fu**, Z. Zhu, J. Liu, and X. Jin. 2024. **MobileSky: Real-time Sky Replacement for Mobile AR**. *IEEE Transactions on Visualization and Computer Graphics*. 30(7): 4304–4320.

TVCG 24   L. Qu*, J. Shang, X. Han, and **H. Fu**. 2024. **ReenactArtFace: Artistic Face Image Reenactment**. *IEEE Transactions on Visualization and Computer Graphics*. 30(7): 4080–4092.

TVCG 24   Y. Jiang, S.-Y. Chen (joint first author), **H. Fu**, and L. Gao. 2024. **Identity-aware and Shape-aware Propagation of Face Editing in Videos**. *IEEE Transactions on Visualization and Computer Graphics*. 30(7): 3444–3456.

TVCG 24   Z. Yang, Y.-H. Wen (joint first author), S.-Y. Chen, X. Liu, Y. Gao, Y.-J. Liu, L. Gao, and **H. Fu**. 2024. **Keyframe Control of Music-driven 3D Dance Generation**. *IEEE Transactions on Visualization and Computer Graphics*. 30(7): 3474–3486.

TVCG 24   J. Liu, N. Saquib, Z. Chen, R. H. Kazi, L.-Y. Wei, **H. Fu**, and C.-L. Tai. 2024. **PoseCoach: A Customizable Analysis and Visualization System for Video-based Running Coaching**. *IEEE Transactions on Visualization and Computer Graphics*. 30(7): 3180–3195.

CVPR 24   K. Wu, L. Yang, Z. Kuang, Y. Feng, X. Han, Y. Shen, **H. Fu**, K. Zhou, and Y. Zheng. 2024. **MonoHair: High-Fidelity Hair Modeling from a Monocular Video**. *CVPR 2024*. (Acceptance rate: 23.6%). (Oral Presentation (top 3.3% of all accepted papers)).

CVPR 24   Z. Cai, K. Jiang, S.-Y. Chen, Y.-K. Lai, **H. Fu**, and L. Gao. 2024. **Real-time 3D-aware Portrait Video Relighting**. *CVPR 2024*. (Acceptance rate: 23.6%). (Poster Highlight (top 11.9% of all accepted papers)).

CAGD 24   S. Yang, W. Ren, X. Zeng, Q. Zhu, **H. Fu**, K. Fan, Y. Lei, J. Yu, Q. Kou, and X. Jin. 2024. **Generated Realistic Noise and Rotation-Equivariant Models for Data-Driven Mesh Denoising**. *Computer Aided Geometric Design (Special Issue of GMP 2024*. Accepted with minor revisions. (Acceptance rate: 28.57%).

CHI 24   H. Ye*, J. Leng*, P. Xu, K. Singh, and **H. Fu**. 2024. **ProInterAR: A Visual Programming Platform for Creating Immersive AR Interactions**. *Proceedings of ACM SIGCHI 2024*. Article No. 610: 1–15. (Acceptance rate: 26.3%).

VR 24   X. Wang*, W. Zhang, and **H. Fu**. 2024. **A3RT: Attention-Aware AR Teleconferencing with Life-Size 2.5D Video Avatars**. *IEEE VR 2024 (Conference Paper)*. Pages 211–221. (Acceptance rate: xx.x%).

2023

C&G 23 · X. Wu, C. Wang, **H. Fu**, A. Shamir, and S.-H. Zhang. 2023. **DeepPortraitDrawing: Generating Human Body Images from Freehand Sketches** . *Computers & Graphics*. Volume 116. 73–81.

Pacific Graphics 23 (CGF) · J. Zhou*, Z. Luo, Q. Yu, X. Han, and **H. Fu**. 2023. **GA-Sketching: Shape Modeling from Multi-View Sketching with Geometry-Aligned Deep Implicit Functions**. *Computer Graphics Forum (Special issue of Pacific Graphics 2023)*. (Acceptance rate: 29.3%).

GM 23 · L. Chen, J. Yang, **H. Fu**, X. Meng, W. Chen, B. Yang, and L. Gao. 2023. **ImplicitPCA: Implicitly-proxied parametric encoding for collision-aware garment reconstruction**. *Graphical Models (Special Issue of CVM 2023)*. Volume 129.

ACMMM 23 · S.-K. Zhang, J.-H. Liu, Y. Li, T.-Y. Xiong, K.-X. Ren, **H. Fu**, and S.-H. Zhang. 2023. **Automatic Generation of Commercial Scenes**. *ACM Multimedia 2023)*. 1137–1147 (Acceptance rate: 29.3%).

TVCG 23 · W. Su*, H. Ye*, S.-Y. Chen, L. Gao, and **H. Fu**. 2023. **DrawingInStyles: Portrait Image Generation and Editing with Spatially Conditioned StyleGAN**. *IEEE Transactions on Visualization and Computer Graphics*. 29(10): 4074–4088.

ICCV 23 · Y. Wu, J. Zhang, **H. Fu**, and X. Jin. 2023. **LPFF: A Portrait Dataset for Face Generators Across Large Poses**. *ICCV 2023*. 20327–20337. (Acceptance rate: xx.0%).

CGF 23 · B. Bao and **H. Fu**. 2023. **Line Drawing Vectorization via Coarse-to-Fine Curve Network Optimization**. *Computer Graphics Forum*. 42(6).

SIGGRAPH 23 (TOG) · L. Gao, F.-L. Liu, S.-Y. Chen, K. Jiang, C.-P. Li, Y.-K. Lai, and **H. Fu**. 2023. **SketchFaceNeRF: Sketch-based Facial Generation and Editing in Neural Radiance Fields**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH 2023)*. 42(4). Article No. 159. (Acceptance rate: xx.0%).

SCIS 23 · B. Chen, Y. Shen, **H. Fu**, X. Chen, K. Zhou, and Y. Zheng. 2023. **NeuralReshaper: Single-image Human-body Retouching with Deep Neural Networks**. *Science China - Information Sciences*. Volume 66, Article No. 199101.

TVCG 23 · B. Chen, **H. Fu**, K. Zhou, and Y. Zheng. 2023. **OrthoAligner: Image-based Teeth Alignment Prediction via Latent Style Manipulation**. *IEEE Transactions on Visualization and Computer Graphics*. 29(8): 3617 – 3629.

TVCG 23 · L. Li, **H. Fu**, and Maks Ovsjanikov. 2023. **WSDesc: Weakly Supervised 3D Local Descriptor Learning for Point Cloud Registration**. *IEEE Transactions on Visualization and Computer Graphics*. 29(7): 3368–3379.

TOG 23 · K. Jiang, S.-Y. Chen, **H. Fu**, and L. Gao. 2023. **NeRFFaceLighting: Implicit and Disentangled Face Lighting Representation Leveraging Generative Prior in Neural Radiance Fields**. *ACM Transactions on Graphics*. 42(3). Article No. 35.

CHI 23 · H. Ye*, J. Leng*, C. Xiao*, L. Wang, and **H. Fu**. 2023. **ProObjAR: Prototyping Spatially-aware Interactions of Smart Objects with AR-HMD**. *Proceedings of ACM SIGCHI 2023*. Article No. 457. (Acceptance rate: 28.39%).

CVM 23 · Q. Fu, S. He, **H. Fu**, X. Li, and Z. Deng. 2023. **Fuzzy-based indoor scene modeling with differentiated examples**. *Computational Visual Media*. 9: 717–732.

CVM 23 · Y. Chen*, K. C. Kwan*, and **H. Fu**. 2023. **Autocompletion of Repetitive Stroking with Image Guidance**. *Computational Visual Media (Special Issue of CVM 2022)*. 9: 581–596.

PAMI 23 · Y.-T. Sun, Q.-C. Fu, Y.-R. Jiang, Z. Liu, Y.-K. Lai, **H. Fu**, and L. Gao. 2023. **Human Motion Transfer with 3D Constraints and Detail Enhancement**. *IEEE Transactions on Pattern Analysis and Machine Intelligence*. 45(4): 4682–4693.

TVCG 23 · S.-S. Huang, H. Chen, J. Huang, **H. Fu**, and S.-M. Hu. 2023. **Real-Time Globally Consistent 3D Reconstruction with Semantic Priors**. *IEEE Transactions on Visualization and Computer Graphics*. 29(4): 1977–1991.

IMWUT 23 · X. Chen, X. Jiang, J. Fang, S. Guo, J. Lin, M. Liao, G. Luo, and **H. Fu**. 2023. **DisPad: Flexible On-Body Displacement of Fabric Sensors for Robust Joint-Motion Tracking**. *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*. 7(1). Article No. 5.

PAMI 23 · Y.-H. Wen, L. Gao, **H. Fu**, F.-L. Zhang, S. Xia, and Y.-J. Liu. 2023. **Motif-GCNs with Local and Non-Local Temporal Blocks for Skeleton-Based Action Recognition**. *IEEE Transactions on Pattern Analysis and Machine Intelligence*. 45(2): 2009–2023.

AAAI 23   J. Shang, Y. Zeng, X. Qiao, X. Wang, R. Zhang, G. Sun, V. Patel, and **H. Fu**. 2023. **JR2Net: Joint Monocular 3D Face Reconstruction and Reenactment**. *37th AAAI Conference on Artificial Intelligence (AAAI-23)*. (Acceptance rate: 19.6%). (Oral Presentation).

IMWUT 23   F. Fang, H. Zhang, L. Zhan, S. Guo, M. Zhang, J. Lin, Y. Qin, and **H. Fu**. 2023. **Handwriting Velcro: Endowing AR Glasses with Personalized and Posture-adaptive Text Input Using Flexible Touch Sensor**. *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*. 6(4): Article No. 163.

2022

SIGGRAPH Asia 22 (TOG)   C. Xiao*, W. Su* (joint first author), J. Liao, Z. Lian, Y.-Z. Song, and **H. Fu**. 2022. **DifferSketching: How Differently Do People Sketch 3D Objects?**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH Asia 2022)*. 41(6). Article No. 264.

SIGGRAPH Asia 22 (TOG)   P. Xu, Y. Li, Z. Yang, W. Shi, **H. Fu**, and H. Huang. 2022. **Hierarchical Layout Blending with Recursive Optimal Correspondence**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH Asia 2022)*. 41(6). Article No. 249.

SIGGRAPH Asia 22 (Conference)   K. Jiang, S.-Y. Chen, F.-L. Liu, **H. Fu**, and L. Gao. 2022. **NeRFFaceEditing: Disentangled Face Editing in Neural Radiance Fields**. *ACM SIGGRAPH Asia 2022 Conference Papers*. Article No. 31.

SIGGRAPH Asia 22 (Conference)   Z. Kuang, Y. Chen, **H. Fu**, K. Zhou, and Y. Zheng. 2022. **DeepMVSHair: Deep Hair Modeling from Sparse Views**. *ACM SIGGRAPH Asia 2022 Conference Papers*. Article No. 10.

ISMAR 22 (TVCG 22)   X. Wang*, H. Ye*, C. Sandor, W. Zhang, and **H. Fu**. 2022. **Predict-and-Drive: Avatar Motion Adaption in Room-Scale Augmented Reality Telepresence with Heterogeneous Spaces**. *IEEE Transactions on Visualization and Computer Graphics (Special Issue of ISMAR 2022)*. 28(11): 3705–3714. (Acceptance rate: 21.6%).

ECCV 22   Z. Hu, X. Bai, R. Zhang, X. Wang, G. Sun, **H. Fu**, and C.-L. Tai. 2022. **LiDAL: Inter-frame Uncertainty Based Active Learning for 3D LiDAR Semantic Segmentation**. *ECCV 2022*. (Acceptance rate: 28%).

TVCG 22   S.-H. Zhang, S.-K. Zhang, W.-Y. Xie, C.-Y. Luo, Y.-L. Yang, and **H. Fu**. 2022. **Fast 3D Indoor Scene Synthesis by Learning Spatial Relation Priors of Objects**. *IEEE Transactions on Visualization and Computer Graphics*. 28(9): 3082-3092.

TVCG 22   H. Ye*, K. C. Kwan*, and **H. Fu**. 2022. **3D Curve Creation on and around Physical Objects with Mobile AR**. *IEEE Transactions on Visualization and Computer Graphics*. 28(8): 2809–2821.

SIGGRAPH 22 (TOG)   F.-L. Liu, S.-Y. Chen, Y.-K. Lai, C.-P. Li, Y.-R. Jiang, **H. Fu**, and L. Gao. 2022. **DeepFace-VideoEditing: Sketch-based Deep Editing of Face Videos**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH 2022)*. 41(4). Article No. 167. (Acceptance rate: xx.0%).

SCIS 22   Q. Fu, **H. Fu**, Z. Deng, and X. Li. 2022. **Indoor Layout Programming via Virtual Navigation Detectors**. *Science China - Information Sciences*. 65(8). Article No. 189101.

TVCG 22   D. Du, X. Han, **H. Fu**, F. Wu, Y. Yu, S. Cui, and L. Liu. 2022. **SAniHead: Sketching Animal-like 3D Character Heads Using a View-surface Collaborative Mesh Generative Network**. *IEEE Transactions on Visualization and Computer Graphics*. 28(6): 2415–2429.

CVPR 22   X. Bai*, Z. Hu, X. Zhu, Q. Huang, Y. Chen, **H. Fu**, and C.-L. Tai. 2022. **TransFusion: Robust LiDAR-Camera Fusion for 3D Object Detection with Transformers**. *CVPR 2022*. (Acceptance rate: 25.3%).

CVPR 22   K. Wu, Y. Ye, L. Yang, **H. Fu**, K. Zhou, and Y. Zheng. 2022. **NeuralHDHair: Automatic High-fidelity Hair Modeling from a Single Image Using Implicit Neural Representations**. *CVPR 2022*. (Acceptance rate: 25.3%).

CHI 22   H. Ye* and **H. Fu**. 2022. **ProGesAR: Mobile AR Prototyping for Proxemic and Gestural Interactions with Real-world IoT Enhanced Spaces**. *Proceedings of ACM SIGCHI 2022*. Article No. 130. (Acceptance rate: 24.7%).

TVCG 22   Y.-L. Qiao, Y.-K. Lai, **H. Fu**, and L. Gao. 2022. **Synthesizing Mesh Deformation Sequences with Bidirectional LSTM**. *IEEE Transactions on Visualization and Computer Graphics*. 28(4): 1906–1916.

TOG 22   Y. Shen, **H. Fu**, Z. Du, X. Chen, E. Burnaev, D. Zorin, K. Zhou, and Y. Zheng. 2022. **GCN-Denoiser: Mesh Denoising with Graph Convolutional Networks**. *ACM Transactions on Graphics*. 41(1). Article No. 8.

2021

SIGGRAPH Asia 21 (Tech Comm.)	Y. Chen*, K.-C. Kwan*, L.-Y. Wei, and **H. Fu**. 2021. **Autocomplete Repetitive Stroking with Image Guidance**. *SIGGRAPH Asia 2021 Technical Communications*.
TVCG 21	G. Xiong, Q. Fu (joint first author), **H. Fu**, B. Zhou, Q. Luo, and Z. Deng. 2021. **Motion Planning for Convertible Indoor Scene Layout Design**. *IEEE Transactions on Visualization and Computer Graphics*. 27(12): 4413–4424.
SIGGRAPH Asia 21 (TOG)	C. Xiao*, D. Yu*, X. Han, Y. Zheng, and **H. Fu**. 2021. **SketchHairSalon: Deep Sketch-based Hair Image Synthesis**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH Asia 2021)*. 40(6). Article No. 216.
SCIS 21	K. Wu, L. Yang, **H. Fu**, and Y. Zheng. 2021. **iHairRecolorer: Deep Image-to-Video Hair Color Transfer**. *Science China - Information Sciences*. 64(210104).
ICCV 21	Z. Hu*, X. Bai*, J. Shang, R. Zhang, J. Dong, X. Wang, G. Sun, **H. Fu**, and C.-L. Tai. 2021. **VMNet: Voxel-Mesh Network for Geodesic-Aware 3D Semantic Segmentation**. *ICCV 2021*. (Acceptance rate: 25.9%). (Oral Presentation (top 3% of all submissions)).
ICCV 21	J. Liu*, M. Shi, Q. Chen, **H. Fu**, and C.-L. Tai. 2021. **Normalized Human Pose Features for Human Action Video Alignment**. *ICCV 2021*. (Acceptance rate: 25.9%). (Oral Presentation (top 3% of all submissions)).
UIST 21	Z. Luo, J. Zhou*, H. Zhu, D. Du, X. Han, and **H. Fu**. 2021. **SimpModeling: Sketching Implicit Field to Guide Mesh Modeling for 3D Animalmorphic Head Design**. *ACM User Interface Software and Technology Symposium*. 854–863. (Acceptance rate: 25.9%).
TVCG 21	L. Li*, C. Zou, Y. Zheng, Q. Su, **H. Fu**, and C.-L. Tai. 2021. **Sketch-R2CNN: An RNN-rasterization-CNN Architecture for Vector Sketch Recognition**. *IEEE Transactions on Visualization and Computer Graphics*. 27(9): 3745–3754.
SIGGRAPH 21 (TOG)	Z. Yang, P. Xu, **H. Fu**, and H. Huang. 2021. **WireRoom: Model-guided Explorative Design of Abstract Wire Art**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH 2021)*. 40(4). Article No. 128. (Acceptance rate: 35.0%).
SIGGRAPH 21 (TOG)	S.-Y. Chen, F.-L. Liu, Y.-K. Lai, P. Rosin, C.-P. Li, **H. Fu**, and L. Gao. 2021. **DeepFaceEditing: Deep Face Generation and Editing with Disentangled Geometry and Appearance Control**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH 2021)*. 40(4). Article No. 90. (Acceptance rate: 35.0%).
TVCG 21	Y. Shen, C. Zhang, **H. Fu**, K. Zhou, and Y. Zheng. 2021. **DeepSketchHair: Deep Sketch-based 3D Hair Modeling**. *IEEE Transactions on Visualization and Computer Graphics*. 27(7): 3250–3263.
TOG 21	S.-S. Huang, Z.-Y. Ma, T.-J. Mu, **H. Fu**, and S.-M. Hu. 2021. **Supervoxel Convolution for Online 3D Semantic Segmentation**. *ACM Transactions on Graphics*. 40(3). Article No. 34.
TOG 21	L. Yang, J. Zhuang, **H. Fu**, X. Wei, K. Zhou, and Y. Zheng. 2021. **SketchGNN: Semantic Sketch Segmentation with Graph Neural Networks**. *ACM Transactions on Graphics*. 40(3). Article No. 28.
CVPR 21	Y. Wen, Z. Yang, **H. Fu**, L. Gao, Y. Sun, and Y.-J. Liu. 2021. **Autoregressive Stylized Motion Synthesis with Generative Flow**. *CVPR 2021*. (Acceptance rate: 27.0%).
CVPR 21	X. Bai*, Z. Luo, L. Zhou, H. Chen, L. Li, Z. Hu, **H. Fu**, and C.-L. Tai. 2021. **PointDSC: Robust Point Cloud Registration using Deep Spatial Consistency**. *CVPR 2021*. (Acceptance rate: 27.0%).
TCSVT 21	D. Yu*, L. Li*, Y. Zheng, M. Lau, Y.-Z. Song, C.-L. Tai, and **H. Fu**. 2021. **SketchDesc: Learning Local Sketch Descriptors for Multi-view Correspondence**. *IEEE Transactions on Circuits and Systems for Video Technology*. 31(5): 1738 - 1750.
Soft Robotics 21	Z. Chen, R. Wu, X. Liu, **H. Fu**, X. Jin, and M. Liao. 2021. **3D Upper Body Reconstruction with Sparse Soft Sensors**. *Soft Robotics*. 8(2): 226–239.
TVCG 21	P. Xu, G. Yan, **H. Fu**, T. Igarashi, C.-L. Tai, and H. Huang. 2021. **Global Beautification of 2D and 3D Layouts with Interactive Ambiguity Resolution**. *IEEE Transactions on Visualization and Computer Graphics*. 27(4): 2355–2368.
CHI 21	Y. Jiang, C. Zhang, **H. Fu**, A. Cannavo, F. Lamberti, H. Lau, and W. Wang. 2021. **HandPainter - 3D Sketching in VR with Hand-based Physical Proxy**. *Proceedings of ACM SIGCHI 2021*. Article No. 412. (Acceptance rate: 26.3%).

CGF 21   K. C. Kwan* and **H. Fu**. 2021. **Automatic Image Checkpoint Selection for Guider-Follower Pedestrian Navigation**. *Computer Graphics Forum*. 40(1): 357–368.

2020

SIGGRAPH Asia 20 (TOG)   L. Yang, Z. Shi, X. Li, Y. Wu, K. Zhou, **H. Fu**, and Y. Zheng. 2020. **iOrthoPredictor: Model-guided Deep Prediction of Teeth Alignment**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH Asia 2020)*. 39(6). Article No. 216. (Acceptance rate: 35.7%).

ISMAR 20 (Conference)   S. Zhang, X. Li, Y. Liu, and **H. Fu**. 2020. **Scale-aware Insertion of Virtual Objects in Monocular Videos**. *Proceedings of IEEE International Symposium on Mixed and Augmented Reality 2020*. 36–44 (Acceptance rate: 28.8%).

Pacific Graphics 20 (CGF)   Q. Fu, H. Yan, **H. Fu**, and X. Li. 2020. **Interactive Design and Preview of Colored Snapshots of Indoor Scenes.** *Computer Graphics Forum (Special Issue of Pacific Graphics 2020)*. 39(7). 543–552.

UIST 20   J. Liu, **H. Fu**, and C.-L. Tai. 2020. **PoseTween: Pose-driven Tween Animation**. *ACM User Interface Software and Technology Symposium*. 791–804. (Acceptance rate: 21.6%).

TOG 20   S. Yang, B.-C. Li, Y.-P. Cao, **H. Fu**, Y.-K. Lai, L. Kobbelt, and S.-M. Hu. 2020. **Noise-Resilient Reconstruction of Panoramas and 3D Scenes using Robot-Mounted Unsynchronized Commodity RGB-D Cameras**. *ACM Transactions on Graphics*. 39(5). Article No. 152.

ECCV 20   Z. Hu, M. Zhen, X. Bai, **H. Fu**, and C.-L. Tai. 2020. **JSENet: Joint Semantic Segmentation and Edge Detection Network for 3D Point Clouds**. *ECCV 2020*. (Acceptance rate: 27%).

SIGGRAPH 20 (TOG)   H. Ye*, K.-C. Kwan* (joint first author), W. Su*, and **H. Fu**. 2020. **ARAnimator: In-situ Character Animation in Mobile AR with User-defined Motion Gestures**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH 2020)*. 39(4). Article No. 83. (Acceptance rate: 28.0%).

SIGGRAPH 20 (TOG)   S.-Y. Chen, W. Su* (joint first author), L. Gao, S. Xia, and **H. Fu**. 2020. **DeepFaceDrawing: Deep Generation of Face Images from Sketches**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH 2020)*. 39(4). Article No. 72. (Acceptance rate: 28.0%). (results were selected to be included in the papers video trailer and back cover of the proceedings) .

GM 20   Q. Fu, **H. Fu**, H. Yan, B. Zhou, X. Chen, and X. Li. 2020. **Human-centric Metrics for Indoor Scene Assessment and Synthesis**. *Graphical Models (Special issue on Computational Visual Media 2020)*. Volume 110.

CVPR 20   L. Li*, S. Zhu, **H. Fu**, P. Tan, and C.-L. Tai. 2020. **End-to-end Learning Local Multi-view Descriptors for 3D Point Clouds**. *CVPR 2020*. 1919–1928. (Acceptance rate: 25.0%).

CVPR 20   X. Bai*, Z. Luo, L. Zhou, **H. Fu**, L. Quan, and C.-L. Tai. 2020. **D3Feat: Joint Learning of Dense Keypoint Detection and Description for 3D Point Clouds**. *CVPR 2020*. 6359–6367. (Acceptance rate: 25.0%). (Oral Presentation (top 5.7% of all submissions)).

CVPRW 20   Y.-J. Yuan, Y.-K. Lai, J. Yang, **H. Fu**, and L. Gao. 2020. **Mesh Variational Autoencoders with Edge Contraction Pooling**. *CVPR 2020 Workshop on Learning 3D Generative Models*. 274–275.

ICRA 20   S.-S. Huang, Z. Ma, T.-J. Mu, **H. Fu**, and S.-M. Hu. 2020. **Lidar-monocular Visual Odometry Using Point and Line Features**. *International Conference on Robotics and Automation*. 1091–1097. (Acceptance rate: 42.2%).

CHI 20   P. C. Wong*, K. Zhu, X.-D. Yang, and **H. Fu**. 2020. **Exploring Eyes-free Bezel-initiated Swipe on Round Smartwatches**. *Proceedings of ACM SIGCHI 2020*. Paper No. 266. (Acceptance rate: 24.31%).

2019

SIGGRAPH Asia 19 (TOG)   L. Gao, J. Yang, T. Wu, Y.-J. Yuan, **H. Fu**, Y.-K. Lai, and H. Zhang. 2019. **SDM-NET: Deep Generative Network for Structured Deformable Mesh**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH Asia 2019)*. 38(6). Article No. 243. (Acceptance rate: 30.0%).

SIGGRAPH Asia 19 (TOG)   C. Zou, H. Mo, C. Gao, R. Du, and **H. Fu**. 2019. **Language-based Colorization of Scene Sketches**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH Asia 2019)*. 38(6). Article No. 233. (Acceptance rate: 30.0%).

UIST 19   Z. Xu, P. C. Wong*, J. Gong, T.-Y. Wu, A. S. Nittala, X. Bi, J. Steimle, **H. Fu**, K. Zhu, and X.-D. Yang. 2019. **TipText: Eyes-free Text Entry on a Fingertip Keyboard**. *ACM User Interface Software and Technology Symposium*. 883–899. (Acceptance rate: 24.4%). (one of the three Best Paper awards (top 1% of all submissions)).

TVCG 19   P. Xu, **H. Fu**, Y. Zheng, K. Singh, H. Huang, and C.-L. Tai. 2019. **Model-guided 3D Sketching**. *IEEE Transactions on Visualization and Computer Graphics*. 25(10): 2927 – 2939.

JCST 19   X. Yang, W. Hu, D. Wang, L. Zhao, B. Yin, Q. Zhang, X. Wei, and **H. Fu**. 2019. **DEMC: A Deep Dual-Encoder Network for Denoising Monte Carlo Rendering**. *Journal of Computer Science and Technology (Special Issue of Computational Visual Media 2019)*. 34(5): 1123 – 1135.

IJCNN 19   M. Ye, S. Zhou, and **H. Fu**. 2019. **DeepShapeSketch : Generating Hand Drawing Sketches from 3D Objects**. *International Joint Conference on Neural Networks*.

Before promotion to Full Prof. (July 2014–June 2019)

C&G 19   B. Bao*, and **H. Fu**. 2019. **Scribble-based colorization for creating smooth-shaded vector graphics**. *Computers & Graphics (Special Issue on CAD/Graphics 2019)*. Volume 81, Pages 73 – 81.

CHI 19   K. C. Kwan* and **H. Fu**. 2019. **Mobi3DSketch: 3D Sketching in Mobile AR**. *Proceedings of ACM SIGCHI 2019*. Paper No. 176. (Acceptance rate: 23.75%).

CGA 19   L. Li*, **H. Fu**, and C.-L. Tai. 2019. **Fast sketch segmentation and labeling with deep learning**. *IEEE Computer Graphics and Applications*. 39(2): 38–51. (Runner-up for the 2019 Best Paper Award from IEEE CGA).

TVCG 19   M. Yuan, L. Gao, **H. Fu**, and S. Xia. 2019. **Temporal upsampling of depth maps using a hybrid camera**. *IEEE Transactions on Visualization and Computer Graphics*. 25(3): 1591–1602.

AAAI 19   Y.-H. Wen, L. Gao, **H. Fu**, F.-L. Zhang, and S. Xia. 2019. **Graph CNNs with motif and variable temporal block for skeleton-based action recognition**. *33rd AAAI Conference on Artificial Intelligence (AAAI-19)*. Accepted for publication. (Acceptance rate: 16.2%).

Expressive 18   J. Zhang*, Y. Chen*, L. Li*, **H. Fu**, and Chiew-Lan Tai. 2018. **Context-based sketch classification**. *Expressive 2018*. 3:1 – 10.

IJCAI 18   X Yang*, Y. Wang, Y. Wang, B. Yin, Q. Zhang, X. Wei, and **H. Fu**. 2018. **Active object reconstruction using a guided view planner**. *International Joint Conference on Artificial Intelligence*. 4965-4971. (Acceptance rate: 20.5%).

TVCG 18   H. Q. Phan*, **H. Fu**, and A. B. Chan. 2018. **Color Orchestra: ordering color palettes for interpolation and prediction**. *IEEE Transactions on Visualization and Computer Graphics*. 24(6): 1942 – 1955.

I3D 18   W. Su*, D. Du*, X. Yang*, S. Zhou*, and **H. Fu**. 2018. **Interactive sketch-based normal map generation with deep neural networks**. *ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games (Proceedings of the ACM on Computer Graphics and Interactive Techniques)*. Volume 1, Number 1. Article No. 22. (Acceptance rate: 31%).

CAGD 18   B. Sheng, B. Liu, P. Li, **H. Fu**, L. Ma, E. Wu. 2018. **Accelerated robust boolean operations based on hybrid representations**. *Computer Aided Geometric Design (Special issue on Geometric Modeling and Processing 2018)*. Volume 62: 133 – 153.

GM 18   B. Sheng, P. Li, **H. Fu**, L. Ma, E. Wu. 2018. **Efficient non-incremental constructive solid geometry evaluation for triangular meshes**. *Graphical Models (Special issue on Computational Visual Media 2018)*. Volume 97, Pages 1–16.

CHI 18   P. C. Wong*, K. Zhu, and **H. Fu**. 2018. **FingerT9: Leveraging thumb-to-finger interaction for same-side-hand text entry on smartwatches**. *Proceedings of ACM SIGCHI 2018*. Paper No. 178. (Acceptance rate: 26%).

CHI 18   Q. Su*, X. Bai, **H. Fu**, C.-L. Tai, and J. Wang. 2018. **Live Sketch: video-driven dynamic deformation of static drawings**. *Proceedings of ACM SIGCHI 2018*. Paper No. 662. (Acceptance rate: 26%).

C&G 18   W. Meng*, S. Chen, Z. Shu, S. Xin, **H. Fu**, and C. Tu. 2018. **Efficiently computing feature-aligned and high-quality polygonal offset surfaces**. *Computers & Graphics (Special Issue on CAD/Graphics 2017)*. Volume 70:62–70. (Acceptance rate: 17%).

TVCG 17   Q. Fu*, X. Chen, X. Su, and **H. Fu**. 2017. **Pose-inspired shape synthesis and functional hybrids.** *IEEE Transactions on Visualization and Computer Graphics*. 23(12): 2574–2585.

SIGGRAPH Asia 17 (TOG)   Q. Fu*, X. Chen, X. Wang, S. Wen, B. Zhou, and **H. Fu**. 2017. **Adaptive synthesis of indoor scenes via activity-associated object relation graphs**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH Asia 2017)*. 36(6). Article No. 201. (Acceptance rate: 24.27%).

UIST 17   Y. Li, X. Luo, Y. Zheng, P. Xu, and **H. Fu**. 2017. **SweepCanvas: Sketch-based 3D prototyping on an RGB-D Image**. *ACM User Interface Software and Technology Symposium*. 387–399. (Acceptance rate: 22.5%).

SIGGRAPH Asia 17 (Posters)   Y. Chen*, W. Meng*, S. Xin, and **H. Fu**. 2017. **SmartSweep: Context-aware modeling on a single image**. *ACM SIGGRAPH Asia 2017 Posters.*

Pacific Graphics 17 (CGF)   S. Yang, K. Chen, M. Liu, **H. Fu**, and S.-M. Hu. 2017. **Saliency-aware real-time volumetric fusion for object reconstruction**. *Computer Graphics Forum (Special issue of Pacific Graphics 2017)*. 36(7): 167–174. (Acceptance rate: 22.4%).

CVM 17   S. Yang, J. Xu, K. Chen, and **H. Fu**. 2017. **View suggestion for interactive segmentation of indoor scenes**. *Computational Visual Media*. 3(2):131–146.

IJMHCI 17   W. H. A. Li*, K. Zhu, and **H. Fu**. 2017. **Exploring the design space of bezel-initiated gestures for mobile interaction**. *International Journal of Mobile Human Computer Interaction*. 9(1): 16–29.

SIGGRAPH Asia 16 (Tech Briefs)   Y. Chen*, **H. Fu**, and K.-C. Au. 2016. **A multi-level sketch-based interface for decorative pattern exploration**. *ACM SIGGRAPH Asia 2016 Technical Briefs.*

SIGGRAPH Asia 16 (Tech Briefs)   L. Li*, Z. Huang*, C. Zou*, C.-L. Tai, R. W. H. Lau, H. Zhang, P. Tan, and **H. Fu**. 2016. **Model-driven sketch reconstruction with structure-oriented retrieval**. *ACM SIGGRAPH Asia 2016 Technical Briefs.*

SIGGRAPH Asia 16 (MGIA)   P. C. Wong*, **H. Fu**, and K. Zhu. 2016. **Back-Mirror: back-of-device one-handed interaction on smartphones**. *ACM SIGGRAPH Asia 2016 Symposium on Mobile Graphics and Interactive Applications.* Presentations and Demonstrations. (Best Demo Honorable Mention).

TVCG 16   S.-S. Huang*, **H. Fu**, L-Y. Wei, and S.-M. Hu. 2016. **Support Substructures: Support-induced part-level structural representation**. *IEEE Transactions on Visualization and Computer Graphics*. 22(8): 2024–36.

MobileHCI 16   Q. Su*, O. K.-C. Au, P. Xu, **H. Fu**, and C.-L. Tai. 2016. **2D-Dragger: Unified touch-based target acquisition with constant effective width**. *18th International Conference on Human-Computer Interaction with Mobile Devices and Services (Mobile HCI 2016)*. 170–179. (Acceptance rate: 23.9%).

Eurographics 16 (CGF)   Q. Fu*, X. Chen, X. Su, J. Li, and **H. Fu**. 2016. **Structure-adaptive shape editing for man-made objects.** *Computer Graphics Forum (Special Issue of Eurographics 2016)*. 35(2): 27–36.

Expressive 16   Q. H. Phan*, J. Lu, P. Asente, A. B. Chan and **H. Fu**. 2016. **Patternista: Learning element style compatibility and spatial composition for ring-based layout decoration**. *Expressive 2016.*

GM 16   S.-S. Huang*, **H. Fu**, and S.-M. Hu. 2016. **Structure guided interior scene synthesis via graph matching**. *Graphical Models (Special issue on Computational Visual Media 2016)*. Volume 85. 46–55.

GM 16   Q. Fu*, X. Chen, X. Su, and **H. Fu**. 2016. **Natural lines inspired 3D shapes re-design.** *Graphical Models (Special issue on Computational Visual Media 2016)*. Volume 85. 1–10.

C&G 16   X. Su, X. Chen, Q. Fu*, and **H. Fu**. 2016. **Cross-class 3D object synthesis guided by reference examples**. *Computers & Graphics (Special Issue on CAD/Graphics 2015)*. Volume 54. 145–153. (Best Paper Award).

IJMHCI 16   W. H. A. Li*, **H. Fu**, and K. Zhu. 2016. **BezelCursor: Bezel-initiated cursor for one-handed target acquisition on mobile touch screens**. *International Journal of Mobile Human Computer Interaction*. 8(1).

Pacific Graphics 15 (CGF)   Q. H. Phan*, **H. Fu**, and A. B. Chan. 2015. **FlexyFont: Learning transferring rules for flexible typeface synthesis**. *Computer Graphics Forum (Special Issue of Pacific Graphics 2015)*. 34(7): 245–256. (Acceptance rate: 21.0%).

CHI 15   P. Xu*, **H. Fu**, C.-L. Tai, and T. Igarashi. 2015. **GACA: Group-aware command-based arrangement of graphic elements**. *Proceedings of ACM SIGCHI 2015*. 2787–2795. (Acceptance rate: 23%).

TVCG 15   C. Zou*, S. Chen, **H. Fu**, and J. Liu. 2015. **Progressive 3D reconstruction of planar-faced manifold objects with DRF-based line drawing decomposition**. *IEEE Transactions on Visualization and Computer Graphics*. 21(2): 252–263.

C&G 15   C. Zou*, X. Peng, H. Lv, S. Chen, **H. Fu**, and J. Liu. 2015. **Sketch-based 3-D modeling for piecewise planar objects in single images**. *Computers & Graphics (Special Issue on Shape Modeling International 2014)*. Volume 46. 130–137.

CVIU 15   B. Li, Y. Lu, C. Li, A. Godil, T. Schreck, M. Aono, M. Burtscher, Q. Chen, N. K. Chowdhury, B. Fang, **H. Fu**, T. Furuya, H. Li, J. Liu, H. Johan, R. Kosaka, H. Koyanagi, R. Ohbuchi, A. Tatsuma, Y. Wan, C. Zhang, and C. Zou*. 2015. **A comparison of 3D shape retrieval methods based on a large-scale benchmark supporting multimodal queries**. *Computer Vision and Image Understanding*. Volume 131. 1–27.

SIGGRAPH Asia 14 (TOG)   Z. Huang*, **H. Fu**, and R. W. H. Lau. 2014. **Data-driven segmentation and labeling of freehand sketches**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH Asia 2014)*. 33(6). Article No. 175. (Acceptance rate: 19.6%).

SIGGRAPH Asia 14 (E-Tech)   C. K. Tsui*, C. H. Law*, and **H. Fu**. 2014. **One-man orchestra: conducting smartphone orchestra**. *ACM SIGGRAPH Asia 2014 Emerging Technologies*. (Best Demo Award).

ACCV 14   Q. H. Phan*, **H. Fu**, and A. B. Chan. 2014. **Look closely: learning exemplar patches for recognizing textiles from product images**. *ACCV 2014*. 461–476.

UIST 14   P. Xu*, **H. Fu**, T. Igarashi, and C.-L. Tai. 2014. **Global beautification of layouts with interactive ambiguity resolution**. *ACM User Interface Software and Technology Symposium 2014*. 243–252. (Acceptance rate: 22.2%).

SIGGRAPH 14 (TOG)   Q. Su*, W. H. A. Li*, J. Wang, and **H. Fu**. 2014. **EZ-Sketching: three-level optimization for error-tolerant image tracing**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH 2014)*. 33(4). Article No. 54. (Acceptance rate: 25.1%).

TVCG 14   Z. Huang*, J. Wang, **H. Fu**, and R. W. H. Lau. 2014. **Structured mechanical collage**. *IEEE Transactions on Visualization and Computer Graphics*. 20(7): 1076–1082.

CAe 14   J. Liu*, **H. Fu**, and C.-L. Tai. 2014. **Dynamic sketching: simulating the process of observational drawing**. *Computational Aesthetics 2014*. (Acceptance rate: 39.1%).

Before promotion to Associate Prof. (Jan. 2009–Jun. 2014)

EG 14 Workshop   B. Li, Y. Lu, C. Li, A. Godil, T. Schreck, M. Aono, M. Burtscher, **H. Fu**, T. Furuya, H. Johan, J. Liu, R. Ohbuchi, A. Tatsuma, and C. Zou*. 2014. **Extended large scale sketch-based 3D shape retrieval**. *Eurographics Workshop on 3D Object Retrieval*.

CGI 14   Z. Huang*, J. Wang, R. W. H. Lau, and **H. Fu**. 2014. **Connection constrained 3D collage**. *Computer Graphics International 2014*. Short Paper.

SIGGRAPH Asia 13 (MGIA)   W. H. A. Li* and **H. Fu**. 2013. **BezelCursor: Bezel-initiated cursor for one-handed target acquisition on mobile touch screens**. *ACM SIGGRAPH Asia 2013 Symposium on Mobile Graphics and Interactive Applications*. Demonstrations.

SIGGRAPH Asia 13 (Tech Briefs)   **H. Fu**, X. Han*, and Q. H. Phan*. 2013. **Data-driven suggestions for portrait posing**. *ACM SIGGRAPH Asia 2013 Technical Briefs*.

SIGGRAPH Asia 13 (E-Tech)   **H. Fu**, X. Han*, and Q. H. Phan*. 2013. **Data-driven suggestions for portrait posing**. *ACM SIGGRAPH Asia 2013 Emerging Technologies*. (Best Demo Award; one of the four program highlights among all the accepted works).

SIGGRAPH 13 (TOG)   K. Xu, K. Chen, **H. Fu**, W.-L. Sun, and S.-M. Hu. 2013. **Sketch2Scene: sketch-based co-retrieval and co-placement of 3D models**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH 2013)*. 32(4). Article No. 123. (Acceptance rate: 24%).

CGA 13   X. Han*, **H. Fu**, H. Zheng*, L. Liu, and J. Wang. 2013. **A video-based interface for hand-driven stop motion animation production**. *IEEE Computer Graphics and Applications*. 33(6): 70–81.

CAD 13   B. Liao, C. Xiao, L. Jin, and **H. Fu**. 2013. **Efficient feature-preserving local projection operator for geometry reconstruction**. *Computer Aided Design*. 45(5): 861–874.

VR 13   L. Chen*, **H. Fu**, W. H. A. Li*, and C.-L. Tai. 2013. **Scalable maps of random dots for middle-scale locative mobile games**. Proceedings of *IEEE Virtual Reality 2013*.

SIGGRAPH Asia 12 (TOG)   C.-H. Shen, **H. Fu**, K. Chen, and S.-M. Hu. 2012. **Structure recovery by part assembly**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH Asia 2012)*. 31(6). Article No. 172. (Acceptance rate: 24%).

SIGGRAPH Asia 12 (TOG)   P. Xu*, **H. Fu**, O. K.-C. Au, and C.-L. Tai. 2012. **Lazy selection: a scribble-based tool for smart shape elements selection**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH Asia 2012)*. 31(6). Article No. 137. (Acceptance rate: 24%).

Pacific Graphics 12 (CGF)   J. Liu, O. K.-C. Au, **H. Fu**, and C.-L. Tai. 2012. **Two-finger gestures for 6DOF manipulation of 3D objects**. *Computer Graphics Forum (Special Issue of Pacific Graphics 2012)*. 31(7): 2047–2055. (Acceptance rate: 19.6%).

ICIP 12 — B. Bao* and **H. Fu**. 2012. **Vectorizing line drawings with near-constant line width**. *IEEE International Conference on Image Processing 2012*. pp. 805–808.

SIGGRAPH 12 (E-Tech) — W. H. A. Li* and **H. Fu**. 2012. **Augmented reflection of reality**. *ACM SIGGRAPH 2012 Emerging Technologies*. (SCM's first and CityU's second exhibition at SIGGRAPH Emerging Technologies).

Eurographics 12 (CGF) — O. K.-C. Au, C.-L. Tai, and **H. Fu**. 2012. **Multitouch gestures for constrained transformation of 3D objects**. *Computer Graphics Forum (Special Issue of Eurographics 2012)*. 31(2): 651-660. (Acceptance rate: 25%).

TVCG 12 — L. Zhang, H. Huang, and **H. Fu**. 2012. **EXCOL: an EXtract-and-COmplete Layering approach to cartoon animation reusing**. *IEEE Transactions on Visualization and Computer Graphics*. 18(7): 1156–1169.

SIGGRAPH Asia 11 (TOG) — **H. Fu**, S. Zhou*, N. Mitra, and L. Liu. 2011. **Animated construction of line drawings**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH Asia 2011)*. 30(6). Article No. 133. (CityU's first first-author technical paper at SIGGRAPH Asia) (results were selected to be included in the technical papers trailer) (Acceptance rate: 20.6%).

SIGGRAPH Asia 11 (TOG) — C.-H. Shen, S.-S. Huang, **H. Fu**, and S.-M. Hu. 2011. **Adaptive partitioning of urban facades**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH Asia 2011)*. 30(6). Article No. 184. (One of the nine highlights among all SIGGRAPH Asia 2011 papers) (Acceptance rate: 20.6%).

TVCG 11 — Y. Zheng, **H. Fu**, O. K.-C. Au, and C.-L. Tai. 2011. **Bilateral normal filtering for mesh denoising**. *IEEE Transactions on Visualization and Computer Graphics*. 17(10): 1521–1530.

Eurographics 11 (CGF) — Y. Zheng, **H. Fu**, D. Cohen-Or, O. K.-C. Au, and C.-L. Tai. 2011. **Component-wise controllers for structure-preserving shape manipulation**. *Computer Graphics Forum (Special Issue of Eurographics 2011)*. 30(2): 563–572. (Acceptance rate: 17.4%).

SIGGRAPH 10 (TOG) — S. Zhou, **H. Fu**, L. Liu, D. Cohen-Or, and X. Han. 2010. **Parametric reshaping of human bodies in images**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH 2010)*. 29(4). Article No. 126. (One of the six highlights among all SIGGRAPH 2010 papers; CityU's first technical paper at SIGGRAPH) (Acceptance rate: 26.5%).

Eurographics 10 (CGF) — O. K.-C. Au, C.-L. Tai, D. Cohen-Or, Y. Zheng, and **H. Fu**. 2010. **Electors voting for fast automatic shape correspondence**. *Computer Graphics Forum (Special Issue of Eurographics 2010)*. 29(2): 645–654. (Acceptance rate: 20%).

SIGGGRAPH ASIA 09 (TOG) — Y.-S. Wang, **H. Fu**, O. Sorkine, T.-Y. Lee, and H.-P. Seidel. 2009. **Motion-aware temporal coherence for video resizing**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH Asia 2009)*. 28(5). Article No. 127. (SCM's first technical paper at SIGGRAPH Asia) (Acceptance rate: 25%).

Before joining CityU

TGRS 09 — W.-L. Lu, K. P. Murphy, J. J. Little, A. Sheffer, and **H. Fu**. 2009. **A hybrid Conditional Random Field for estimating the underlying ground surface from airborne LiDAR data**. *IEEE Transactions on Geoscience and Remote Sensing*. 47(8): 2913–2922.

Eurographics 09 (CGF) — T. Popa, Q. Zhou, D. Bradley, V. Kraevoy, **H. Fu** and A. Sheffer, and W. Heidrich. 2009. **Wrinkling captured garments using space-time data-driven deformation**. *Computer Graphics Forum (Special Issue of Eurographics 2009)*. 28(2): 427–435. (Acceptance rate: 23.0%).

TWEB 09 — X. Xiao, Q. Luo, D. Hong, **H. Fu**, X. Xie, and W.-Y. Ma. 2009. **Browsing on small displays by transforming web pages into hierarchically structured sub-pages**. *ACM Transactions on the Web*. 3(1): Article No. 04.

TVC 09 — C. Xiao, **H. Fu**, and C.-L. Tai. 2009. **Hierarchical aggregation for efficient shape extraction**. *The Visual Computer*. 25(3): 267–278.

SIGGRAPH 08 (TOG) — **H. Fu**, D. Cohen-Or, G. Dror, and A. Sheffer. 2008. **Upright orientation of man-made objects**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH 2008)*. 27(3): Article No. 42. (Acceptance rate: 17.9%).

TVCG 08 — K. Xu, Y. Jia, **H. Fu**, S. Hu, and C.-L. Tai. 2008. **Spherical piecewise constant basis functions for all-frequency precomputed radiance transfer**. *IEEE Transactions on Visualization and Computer Graphics*. 14(2): 454–467. (IEEE TVCG Featured Article).

CRV 08 — W.-L. Lu, J. J. Little, A. Sheffer, and **H. Fu**. 2008. **Deforestation: Extracting 3D bare-earth surface from airborne LiDAR data**. In *Canadian Conference on Computer and Robot Vision 2008*. pp. 203–210.

CAVW 08   C. Xiao, S. Liu, **H. Fu**, C. Lin, C. Song, Z. Huang, F. He, and Q. Peng. 2008. **Video completion and synthesis**. *Journal of Computer Animation and Virtual World: Proceedings of Computer Animation & Social Agents (CASA 2008)*. 19(3-4): 341–353.

SIGGRAPH 07 (TOG)   O. K.-C. Au, **H. Fu**, C.-L. Tai, and D. Cohen-Or. 2007. **Handle-aware isolines for scalable shape editing**. *ACM Transactions on Graphics (Special Issue of ACM SIGGRAPH 2007)*. 26(3): Article No. 83. (Acceptance rate: 23.7%).

SBIM 07   **H. Fu**, Y. Wei, L. Quan, and C.-L. Tai. 2007. **Sketching hairstyles**. In *Eurographics Workshop on Sketch-Based Interfaces and Modeling 2007*. pp. 31–36.

CGF 07   **H. Fu**, O. K.-C. Au, and C.-L. Tai. 2007. **Effective derivation of similarity transformations for implicit Laplacian mesh editing**. *Computer Graphics Forum*. 26(1): 34–45.

SPM 07   X. Huang, **H. Fu**, O. K.-C. Au, and C.-L. Tai. 2007. **Optimal boundaries for Poisson mesh merging**. In *ACM Solid and Physical Modeling Symposium 2007*. pp. 35–40. (Acceptance rate: 26.6%).

TVCG 06   O. K.-C. Au, C.-L. Tai, L. Liu, and **H. Fu**. 2006. **Dual Laplacian editing for meshes**. *IEEE Transactions on Visualization and Computer Graphics*. 12(3): 386–395.

CIKM 05   X. Xiao, Q. Luo, D. Hong, and **H. Fu**. 2005. **Slicing*-tree based web page transformation for small displays**. In *Proceedings of the 14th ACM international conference on Information and knowledge management*. pp. 303–304.

PG 05 (Short Papers)   **H. Fu**, C.-L. Tai, and O. K.-C. Au. 2005. **Morphing with Laplacian coordinates and spatial-temporal texture**. In *Pacific Graphics 2005*. pp. 100–102. (Acceptance rate: 35.5%).

SGP 05 (Posters)   O. K.-C. Au, C.-L. Tai, **H. Fu**, and L. Liu. 2005. **Mesh editing with curvature flow Laplacian**. In *Symposium on Geometry Processing 2005*. Poster.

GMP 04   **H. Fu**, C.-L. Tai, and H. Zhang. 2004. **Topology-free cut-and-paste editing over meshes**. In *Geometric Modeling and Processing 2004*. pp. 173–182. (Acceptance rate: 23.3%).

Books and Conference Proceedings

Pacific Graphics 18   **H. Fu**, A. Ghosh, and J. Kopf (eds). 2018. Special issue of *Computer Graphics Forum* for *Pacific Graphics 2018*. Volume 37, Issue 7. Eurographics Association and John Wiley & Sons Ltd.

CAD/Graphics 15   **H. Fu**, X. Li, L. Ma, and J.-H. Yong (eds). 2015. Conference Proceedings of *CAD/Graphics 2015*. IEEE CS Press.

CAD/Graphics 15   **H. Fu**, X. Li, L. Ma, and J.-H. Yong (eds). 2015. Special issue of *Computers & Graphics* for *CAD/Graphics 2015*. Elsevier.

CAD/Graphics 13   **H. Fu**, J. Jorge, B. Wang, and E. Zhang (eds). 2013. Conference Proceedings of *CAD/Graphics 2013*. IEEE CS Press.

CAD/Graphics 13   **H. Fu**, J. Jorge, B. Wang, and E. Zhang (eds). 2013. Special issue of *Computers & Graphics* for *CAD/Graphics 2013*. Elsevier.

Delphi Book 02   **H. Fu**. 2002. **Advanced Programming in Delphi 6.0** (in Chinese). *Publishing House of Electronics Industry*. 300 pages. ISBN: 7900084622.

Theses

PhD Thesis   **H. Fu**. 2007. **Differential methods for intuitive 3D shape modeling**. *Ph.D. Thesis*. Dept. of Computer Science & Engineering, Hong Kong Univ. of Science & Technology.

Senior Thesis   **H. Fu**. 2002. **Magnetocardiography signal denoising techniques.** *Senior Thesis*. Dept. of Information Science, School of Mathematical Sciences, Peking Univ.

Patents

2023   **H. Fu**, H. Ye, and C. Xiao. **Prototyping Applications of Spatially Aware Smart Objects Using Augmented Reality**. US Non-Provisional Patent Application (No. 18/335,559), filed on 15 June 2023

2025   **H. Fu** and H. Ye. **Mobile AR Prototyping for Proxemic and Gestural Interactions with Real-world IoT Enhanced Spaces**. Patent No. US12205195B2, Publication date: 21 January 2025, filed on 5 July 2022.

2021   **H. Fu** and K. C. Kwan. **Three-dimensional Sketching in Mobile Augmented Reality**. Patent No. US11087561, Publication date: 10 Aug 2021, filed on 12 July 2019.

2020	L. Gao, **H. Fu**, and W. Su. **Method and System for Synthesizing Human Face from Freehand Sketches**. Filing No. 202010439641.2 (CN), filed on 22 May 2020.
2019	**H. Fu**, P. Xu, and C.-L. Tai. **Group-aware Command-based Arrangement of Graphic Elements**. Patent No. US10223330B2, Publication date: 5 March 2019, filed on 26 August 2015.
2017	**H. Fu**, Q. Su, and W. H. A. Li. **Facilitation of Error Tolerant Image Tracing Optimization**. Patent No. US9542043 B2, Publication date: 10 Jan. 2017, filed on 9 Dec. 2014.
2017	C.-L. Tai, O. K-C. Au, and **H. Fu**. **System and Method for Constrained Manipulations of 3D Objects by Multitouch Inputs**. Patent No. US9542068 B2, Publication date: 10 Jan. 2017, filed on 7 Feb. 2012.

Grants

RGC Grants (*total fund = 7,336,398 HKD*)

2026.01.01 –2029.12.31	PC, 3,600,000 HKD, **Video Generation and Editing Driven by 3D Physical Simulation**, NSFC/RGC Collaborative Research Scheme (CRS), Project No. CRS_HKUST605/25.
2019.11.01 –2023.10.31	PI, 535,396 HKD + 26,770 HKD (*top-up*), **Towards Bridging the Gap between Freehand Sketches and 3D Models**, *HKSAR RGC General Research Fund (GRF)*, Project No. 9042894 (CityU 11212119)
2017.01.01 –2020.06.30	PI, 675,647 HKD + 33,782 HKD (*top-up*), **Data-driven Structure-adaptive Editing of Man-made Objects**, *HKSAR RGC General Research Fund (GRF)*, Project No. 9042335 (CityU 11237116)
2015.10.01 –2019.03.31	PI, 695,861 HKD + 34,793 HKD (*top-up*), **Support-driven Shape Analysis**, *HKSAR RGC General Research Fund (GRF)*, Project No. 9042224 (CityU 11300615)
2014.11.01 –2018.04.30	PI, 692,894 HKD + 34,645 HKD (*top-up*), **Data-driven 3D Interpretation of Freehand Drawings**, *HKSAR RGC General Research Fund (GRF)*, Project No. 9042032 (CityU 11204014)
2014.01.01 –2013.12.31	PI, 645,500 HKD + 32,275 HKD (*top-up*), **A Part Assembly Framework for Recovering 3D Geometry and Structure of Everyday Objects**, *HKSAR RGC General Research Fund (GRF)*, Project No. 9041881 (CityU 113513)
2011.01.01 –2013.06.30	PI, 491,000HKD + 20,000HKD (*top-up*), **Motion-Aware Temporal Coherence for Video Resizing**, *HKSAR RGC General Research Fund (GRF)*, Project No. 9041562 (CityU113610)

ITF Grants (*total fund = 1,059,150 HKD*)

2024.01.01 –2024.05.31	PI (transferred to Prof. Kening Zhu due to my resignation from CityU), 1,059,150 HKD, **Development of Attention-Aware, Immersive, Collaborative Video Teleconferencing System with 360 Video and Mixed Reality**, *ITSP (Seed)*, Project No. 9440364

Internal Grants (*total fund = 2,030,899 HKD*)

2025.09.01 –2026.08.31	PI, 200,000HKD, **Tech2Art: An LLM Platform for Inspiring Artistic Expression from Technical Innovations**, *AIS Support Fund for Interdisciplinary Research Collaboration*
2023.05.01 –2024.05.31	PI, 225,000HKD, **Deep Full-body Human Image Generation with Disentangled Geometry and Appearance Control**, *Donations for Research Projects (By Chow Sang Sang Group Research Fund)*, Project No. 9229119
2023.04.01 –2024.05.31	PI, 299,924HKD, **Development of Attention-Aware, Immersive, Collaborative Video Teleconferencing System with 360 Video and Mixed Reality**, *CityU Applied Research Grant*, Project No. 9667260
2021.09.01 –2024.05.31	PI, 100,000HKD, **Towards Efficient, High-quality Semantic Reconstruction of 3D Scenes**, *CityU Strategic Research Grant*, Project No. 7005729 (SCM)
2021.04.01 –2023.09.30	PI, 220,000HKD, **ProGesAR: Mobile AR Prototyping for Proxemic and Gestural Interactions**, *CityU Applied Research Grant*, Project No. 9667234
2020.09.01 –2023.02.28	PI, 100,000HKD, **3D Authoring on and around Physical Environments in Mobile AR**, *CityU Strategic Research Grant*, Project No. 7005590 (SCM)
2020.11.12 –2022.06	Co-PI, 50,000HKD, **ITA 2.0: Interactive Technologies for Accessibility with Multimodality and Embodiment**, *ACIM Collaborative Research Fellowship*. Co-PI: Dr. Kening Zhu
2018.10.01 –2021.09.30	PI, 100,000HKD, **Constructing a Collection of Sketch-Model Pairs via Crowdsourcing and its Application**, *CityU Strategic Research Grant*, Project No. 7005176 (SCM)

2017.09.01 –2020.08.31	Co-PI, 300,000HKD, **Interactive Techniques for Accessibility**, *ACIM Collaborative Research Fellowship*. Two other Co-PIs: Dr. Miu Ling Lam and Dr. Kening Zhu
2017.09.01 –2020.02.29	PI, 100,000HKD, **Human-Centric 3D Shape Design and Synthesis**, *CityU Strategic Research Grant*, Project No. 7004915
2013.05.01 –2014.10.31	PI, 76,000HKD, **Data-driven Suggestion for Portrait Posing**, *CityU Seed Grant (SG)*, Project No. 7003058
2012.05.01 –2014.04.30	PI, 179,975HKD, **Adaptive Partitioning of Urban Facades**, *CityU Strategic Research Grant (SRG)*, Project No. 7002776
2012.10.01 –2014.03.31	PI, 100,000HKD, **Animating Line Art by Estimating Its Drawing Process**, *CityU Strategic Research Grant for unfunded GRF/ECS (SRG-Fd)*, Project No. 7002925
2010.04.01 –2012.03.31	PI, 80,000HKD, **Parametric Reshaping of Human Bodies in Images**, *CityU Strategic Research Grant (SRG)*, Project No. 7002533
2009.05.01 –2011.04.30	PI, 100,000HKD, **Motion-Aware Video Resizing**, *CityU Start-up Grant for New Staff (StUP)*, Project No. 7200148

Others

2021.07–2024.05	PI, 10,000USD, Unrestricted Gift, *Adobe Systems, Inc*
2020.11–2024.05	PI, 10,000USD, Unrestricted Gift, *Adobe Systems, Inc*
2019.03–2024.05	PI, 5,000USD, Unrestricted Gift, *Adobe Systems, Inc*
2018.05–2020.05	PI, 50,000RMB, **Subjective Assessment of Users in Virtual Indoor Scenes**, *Open Project Program of State Key Laboratory of Virtual Reality Technology and Systems, Beihang University*, Project No. VRLAB2018C11

Professional Talks

Conference Presentations

2025-	**Character animation from drawing to life**. - Invited Speaker. *3rd CSIG Conference on Emotional Intelligence*. Shenzhen, China. December 2025 - Invited Speaker. *SIGGRAPH 2025 Workshop: Drawing & Sketching*. Vancouver, Canada. August 2025
2025.06	**Towards more accessible tools for visual content creation**. Keynote Speech. Nicograph International 2025. Kanazawa, Japan
2024.10	**The integration of art and technology: the impact of generative AI on art and insights for higher education**. Keynote Speech. *2024 Art Artificial Intelligence Awards (AAiA) Academic Conference*. Beijing, China
2024	**Towards more accessible tools for content creation**. - Keynote Speech. *CCF CAD/CG 2024 and CSIAM GDC 2024*. Nanchang, China. Aug. 2024 - Keynote Speech. *Computer Graphics Workshop 2024*. Taiwan. July 2024
2022.06	**Sketch-based face image generation**. Invited Speaker. *14th International Conference on Digital Image Processing*. Virtual Conference.
2018–2021	**Data-driven sketch interpretation**. - Keynote Speech. 1st Workshop on Sketching for Human Expressivity, ICCV 2021. Oct. 2021 - Minisymposium Invited Speaker. *7th International Consortium of Chinese Mathematicians in Computational and Applied Mathematics (ICCM-CAM)*. Nanjing, China. Dec. 2018
2020.10	**3D sketching and animation in mobile AR**. Invited Forum Speaker. China National Computer Congress.
2018.08	**Context-based sketch classification**. *Expressive 2018*. Victoria, Canada
2016.07	**Part-based assembly for shape analysis and synthesis**. Keynote Speech. *Computer Graphics Workshop 2016*. Taiwan
2016.05	**Structure-adaptive shape editing for man-made objects**. *Eurographics 2016*. Lisbon, Portugal
2016.05	**Patternista**. *Expressive 2016*. Lisbon, Portugal
2015.10	**FlexyFont**. *Pacific Graphics 2015*. Beijing, China
2015.05	**Modeling from sketches and beyond**. Invited Speaker. *HKU Symposium on 3D Printing for Education*. Hong Kong

2014.12 **One-man orchestra**. *ACM SIGGRAPH Asia 2014*. Shenzhen, China

2014.08 **EZ-Sketching**. *ACM SIGGRAPH 2014*. Vancouver, Canada

2013.11 **Data-driven suggestions for portrait posing**. *ACM SIGGRAPH Asia 2013*. Hong Kong

2012.11 **Lazy selection**. *ACM SIGGRAPH Asia 2012*. Singapore

2011.11 **Animated construction of line drawings**. *ACM SIGGRAPH Asia 2011*. Hong Kong

2010.07 **Parametric reshaping of human bodies in images**. *ACM SIGGRAPH 2010*. Los Angeles, CA, USA

2009.12 **Motion-aware temporal coherence for video resizing**. *ACM SIGGRAPH Asia 2009*. Yokohama, Japan

2008.05 **Bare-earth extraction from airborne LiDAR data**. *10th GEOIDE Annual Scientific Conference*. Ontario, Canada

2007.08 **Handle-aware isolines for scalable shape editing**. *ACM SIGGRAPH 2007*. San Diego, CA, USA

2007.08 **Sketching hairstyles**. *SBIM 2007*. Univ. of Riverside, CA, USA

2005.10 **Morphing with Laplacian coordinates and spatial-temporal texture**. *PG 2005*. Macau, China

2004.04 **Topology-aware cut-and-paste editing over meshes**. *GMP 2004*. Beijing, China

Seminar Talks

2025.05 **Prototyping 3D interactions with mobile AR**. Panel Speaker. Diffraction Fields Symposium, CMA, HKUST (GZ)

2024.10 **The intersection of art and technology: redefining the future of content creation**.
- School of Arts, Peking University, China.
- Central Academy of Fine Arts, China.
- Central Academy of Drama, China.

2023- **Towards more accessible tools for content creation**.
- School of Data Science, Lingnan University, Hong Kong, April 2025
- Silkroad Visual Technology, China. November 2024
- Mini-Workshop on Frontiers of Geometry Computing & Visual Media, Hong Kong University, China. November 2024
- CSE Department Seminar, HKUST, China. October 2024
- CMA Seminar, Computational Media and Arts Thrust, HKUST (GZ). September 2024
- Graduate School of Information Science and Technology, Hokkaido University, Japan. August 2023
- School of Film, Xiamen University, China. July 2023
- Division of Emerging Interdisciplinary Areas, HKUST, June 2023

2023.04 **Sketching photo-realistic human faces**. Invited Speaker, CSIG International Webinar on Image & Graphics Technologies (Sketching & Creativity Tools)

2023.04 **Interaction prototyping with mobile AR**. SCM/ACIM Research Colloquium, City University of Hong Kong

2018–2022 **Data-driven sketch interpretation**.
- School of Film, Xiamen University, China. April 2022
- Asia Graphics Webinar, Online. Jan. 2022
- Beihang VR Forum, Beihang University, China. Dec. 2021
- Center on Frontiers of Computing Studies, Peking University, China. Nov. 2021
- Opening Speech, Seminar on Freehand Sketch Research, CCF-CV, China. April 2021
- Tsinghua University, China. Jan. 2020
- Advanced Lectures on Image and Graphics, Shenzhen University, China. Dec. 2019
- Summer School, Shandong University, China. July 2019
- CSE, Hong Kong University of Science and Technology. Dec. 2018

2021.06 **3D sketching and animation in mobile AR**. Invited Speaker, CSIG Seminar, CCF-TCVRV

2021.05 **Sketch-based modeling and processing**. Invited Speaker, Human Machine Interaction Virtual Workshop, HMI Lab, Huawei, Canada

2020.10 **2D/3D content authoring tools for novice users**. SCM/ACIM Research Colloquium, City University of Hong Kong

2017.07 **Sketch-based 3D modeling**. Summer School, University of Science and Technology of China, China

2016.07 **Structure-adaptive shape editing for man-made objects**. National Tsing Hua University, Taiwan

2015	**Constrained part assembly**.
	- Northwestern Polytechnical University. Aug. 2015
	- Hong Kong University. Apr. 2015
2014.07–08	**Non-local snapping and its applications**.
	- University of British Columbia, Canada
	- McGill University, Canada
	- University of Toronto, Canada
2013.11	**Data-driven suggestions for portrait posing**. Ningbo University, China
2011–2012	**Animated construction of line drawings**.
	- National Taiwan University, Taiwan. Jun. 2012
	- South China University of Technology, China. Apr. 2012
	- Sun Yat-Sen University, China. Apr. 2012
	- Shanghai Jiao Tong University, China. Feb. 2012
	- East China Normal University, China. Feb. 2012
	- Hong Kong Univ. of Science and Technology. Nov. 2011
2011–2012	**Adaptive partitioning of urban facades**.
	- Hong Kong University. Feb. 2012
	- SIAT, Chinese Academy of Sciences, China. Oct. 2011
2010.03	**Shape deformation and its applications**.
	- Tsinghua University, China
	- Peking University, China
2008.06–07	**Upright orientation of man-made objects**.
	- Univ. of British Columbia, Canada
	- Univ. of Toronto, Canada
2007.10	**Differential mesh deformation**. Univ. of British Columbia, Canada

Professional Services

Membership

2023-2025	Distinguished Expert, **HOME Program of China Association for Science and Technology**
2023	Member, **SIGGRAPH Asia 2025 Bidding Committee**
2022-2028	Member, **Research Grants Council Engineering Panel (E2)**, Hong Kong
2021-	Vice Chair, **Asiagraphics Association**
2022-	Senior Member, **IEEE**
2022-	Senior Member, **ACM**
2018-	Member, **Expressive Conference Steering Committee**
2017-2019	Consultative Panel Member, **SIGGRAPH Asia Conference Advisory Group**
2016-	Executive Committee Member, **Asia Graphics Association**
2016-	Treasurer, **Asiagraphics Association**
2015-2017	Member (as SA16 Conference Chair), **SIGGRAPH Asia Conference Advisory Group**
2015-2016	Foundation Working Group Member, **Asiagraphics Association**

Editorship

2026-	Associate Editor, **IEEE Transactions on Visualization and Computer Graphics**
2025-	Editorial Board Member, **Journal of Design Intelligence**
2024-2025	Guest Editor (Special Issue on Human-AI Interaction for Graphics and Visualization), **IEEE Computer Graphics and Applications**
2023–2024	Guest Editor (Special Issue for Large-Scale Generative Models for Content Creation and Manipulation), **International Journal of Computer Vision**
2021-	Editorial Board Member, Science Press **Virtual Reality & Intelligent Hardware**
2014-2024	Associate Editor, Elsevier **Computers & Graphics**
2019	Springer Guest Editor (Special Issue for Computational Visual Media 2019), Journal of Computer Science and Technology
2019	Guest Editor (Special Issue for Computational Visual Media 2019), Elsevier **Graphical Models**

2018	Guest Editor (Special Issue for Pacific Graphics 2018), **Computer Graphics Forum**
2015–2018	Associate Editor, **Computer Graphics Forum**
2013–2016	Associate Editor, Springer **The Visual Computer**
2015	Guest Editor (Special Issue for CAD/Graphics 2015), Elsevier **Computers & Graphics**
2013	Guest Editor (Special Issue for CAD/Graphics 2013), Elsevier **Computers & Graphics**

Conference/Festival Organization

SA 2025	Technical Papers Program Assistant Chair, **SIGGRAPH Asia 2025**
CVM 2025	Conference Co-Chair, **Computational Visual Media 2025**
HKUSTAIFF 2025	Co-Chair, **1st HKUST AI Film Festival**
PG 2022	Publicity Co-Chair, **Pacific Graphics 2022**
CVM 2022	Publicity Co-Chair, **Computational Visual Media 2022**
SketchDL 2021	Co-organizer, **CVPR 2021, The 1st Workshop on Sketch-Oriented Deep Learning**
CVM 2019	Program Co-Chair, **Computational Visual Media 2019**
Expressive 2018	Conference Co-chair, **Expressive 2018**
PG 2018	Program Co-chair, **Pacific Graphics 2018**
SA 2016	Conference Chair, **SIGGRAPH Asia 2016**
CAD/CG 2015	Program Co-chair, **CAD/Graphics 205**
SA 2014	Workshop and Co-located Events Chair, **SIGGRAPH Asia 2014**
CAD/CG 2013	Program Co-chair, **CAD/Graphics 2013**
SA 2013	Emerging Technologies Program Chair, **SIGGRAPH Asia 2013**
PG 2012	Organization Co-chair, **Pacific Graphics 2012**

Panel Moderation

2024.11	**AI Empowerment in Fashion Business**. Panel Moderator. *Fashion Summit*. Hong Kong
2024.11	**Interdisciplinary Education at the Interface of Innovation, Art, and Design**. Panel Moderator. *International Forum on Interdisciplinary Education*. Hong Kong
2014.04	**Digital Media in 2025**. Invited Panel Chair. *Digital Entertainment Leadership Forum (DELF) 2014*. Hong Kong

Conference Program Committee

2026	SIGGRAPH (Sorter) SIGGRAPH Asia (Sorter)
2025	SIGGRAPH (Technical Papers PC and Sorter) Geometric Modeling and Processing Eurographics CAD & CG (Domestic)
Past	**ACM SIGGRAPH**: Technical Papers: 2021, 2022 (also as IPC Coordinator, Best Papers Award Committee Member), 2024 Technical Papers COI Coordinator: 2019 **ACM SIGGRAPH Asia**: Technical Papers: 2016, 2018, 2023, 2024 (Test-of-Time Award) Technical Briefs/Communications and Posters: 2010-2020 Courses: 2011, 2019, 2022 Emerging Technologies: 2014

Eurographics: 2014-2015 (Short Papers), 2016-2017, 2020-2021, 2023 (STARs), 2024
IEEE Virtual Reality: 2021 (Conference Track)
Pacific Graphics: 2010, 2012 (Session Chair), 2019, 2020, 2021, 2023-2024
Shape Modeling International: 2011–2024
CAD/Graphics: 2017, 2019, 2021, 2023
Computational Visual Media: 2012-2013, 2015-2018, 2020-2024
Chinagraph: 2014, 2016, 2018, 2020, 2022
Chinese CHI: 2016-2018, 2020-2022
CAD & CG (Domestic): 2017-2019, 2021, 2023, 2024
Geometric Modeling and Processing: 2024
Chinese Conference on Pattern Recognition and Computer Vision: 2024 (Senior Meta-Reviewer)
International Congress of Basic Science: 2024 ((Best Papers Nomination Committee)
British Machine Vision Conference: 2021 (Area Chair)
MobileHCI: 2019 (Associate Chair)
Spatial User Interaction: 2019
CSIAM Geometric Design and Computing of China (GDC): 2017, 2019
Augmented Human: 2015
Symposium on Virtual Reality Software Technology: 2014-2015
Symposium on Visual Computing: 2014-2015
Symposium on Geometry Processing: 2012, 2014-2015
Symposium on Interactive 3D Graphics and Games: 2010-2013

Tertiary Reviewer

Conferences ACM SIGGRAPH, ACM SIGGRAPH Asia, CVPR, CHI, UIST, Eurographics, Pacific Graphics, Symposium on Geometry Processing, IEEE Visualization, IEEE Virtual Reality (VR), IEEE Symposium on Mixed and Augmented Reality (ISMAR), Geometric Modeling and Processing (GMP), etc.

Journals ACM Transactions on Graphics (TOG), IEEE Transactions on Visualization and Computer Graphics (TVCG), Computer Graphics Forum, IEEE Transactions on Systems, Man, and Cybernetics (TSMC), IEEE Transactions on Multimedia (TMM), Pattern Recognition (PR), Computer-Aided Design (CAD), etc.

Grant Proposals and Others Judging Panelist for S. -T. Yau High School Science Award (Computer Award) 2020 - 2022
HK Tech 300 Panelist (5th Cohort Angel Fund) 2022
Reviewer for Discovery Grant, Natural Sciences and Engineering Research Council of Canada (NSERC) 2019
Judging Panelist of HK ICT Awards 2014-2015, 2017-2019
Reviewer for Israel Science Foundation 2012
Reviewer for Hong Kong RGC General Research Funds for 2009/2010

Member of Master/PhD Thesis Committee

PhD 2026 **Meng You**. Feb. 2026. CityUHK.
Yingzhi Tang. Jan. 2026. CityUHK.

PhD 2025 **Xinyu Lin**. June 2025. CUHK (Shenzhen).
Rensi Yu. June 2025. CityUHK.
Nannan Zhang. May 2025. CUHK (Shenzhen).
Yiqun Lin. April 2025. HKUST.

PhD 2024 **Jaeyeon Kim**. November 2024. HKUST.
Michal Kucera. September 2024. Czech Technical University in Prague.
Yingshu Chen. August 2024. HKUST.
Yanna Lin. August 2024. HKUST.
Yujian Zheng. August 2024. CUHK (Shenzhen).
Yu Ho Lo (Leo). August 2024. HKUST.
Linping Yuan. August 2024. HKUST.
Tuan Anh Vu. August 2024. HKUST.
Chengbo Zheng. August 2024. HKUST.
Zhanghan Ke. April 2024. City University of Hong Kong
Yiming Zheng. Jan. 2024. City University of Hong Kong

PhD 2023	**Emilie Yu**. December 2023. Inria Sophia-Antipolis.
	Li Ma. November 2023. Hong Kong University of Science and Technology.
	Shaoyu Cai. July 2023. City University of Hong Kong.
	Linlin Liu. Feb. 2023. Nanyang Technological University.
PhD 2022	**Xingbo WANG**. August 2022. Hong Kong University of Science and Technology.
	Taizhou Chen. July 2022. City University of Hong Kong.
	Arshad Nasser. April 2022. City University of Hong Kong.
PhD 2021	**Lingyan Ruan**. September 2021. City University of Hong Kong.
	Zulfiqar ALI. August 2021. City University of Hong Kong.
	Xiaoyu Li. August 2021. Hong Kong University of Science and Technology.
	Ruixing WANG. July 2021. Chinese University of Hong Kong.
PhD 2020	**Nanxuan ZHAO**. Aug. 2020. City University of Hong Kong.
	Ziming WU. July 2020. Hong Kong University of Science and Technology.
	Yue MA. June 2020. City University of Hong Kong.
PhD 2019	**Mingqian Zhao**. December 2019. Hong Kong University of Science and Technology.
	Songfang HAN. June 2019. Hong Kong University of Science and Technology.
	Cheyang ZHU. Feb. 2019. Simon Fraser University.
	Bo ZHANG. Jan. 2019. Hong Kong University of Science and Technology.
PhD 2018	**Quan LI**. December 2018. Hong Kong University of Science and Technology.
	Xufang Pang. October 2018. City University of Hong Kong.
	Yaozhun HUANG. September 2018. City University of Hong Kong.
	Qiang FU. June 2018. Beihang University.
	Jianwei LI. June 2018. Beihang University.
	Yu ZHANG. June 2018. Beihang University.
	Xiaodan ZHANG. May 2018. City University of Hong Kong.
PhD 14–17	**Wei ZHANG**. August 2017. The University of Hong Kong.
	Ge CHEN. June 2017. Hong Kong University of Science and Technology.
	Qian ZHENG. June 2015. SIAT, Chinese Academy of Sciences.
	Jing LIAO. December 2014. Hong Kong University of Science and Technology.
	Ying CAO. December 2014. City University of Hong Kong.
	Linchao BAO. December 2014. City University of Hong Kong.
	Changqing ZOU. November 2014. University of Chinese Academy of Sciences.
Master	**Wei SUN**. June 2015. SIAT, Chinese Academy of Sciences.
	Wenzhen LIN. June 2015. SIAT, Chinese Academy of Sciences.
	Zhuming HAO. June 2015. SIAT, Chinese Academy of Sciences.
	Desai TIAN. May 2010. City University of Hong Kong.

Media Coverage

2022	**NeuralReshaper**. Unite.AI. 9 December 2022.
	NeuralReshaper. The Decoder. 10 April 2022
2021	**SketchHairSalon**. ITMedia, Japan. 15 December 2021.
2020	**DeepFaceDrawing**. June 2020.
	- Synced, Medium, NewScientist, engadget, PetaPixel, Line Today, Hong Kong Economic Journal, South China Morning Post, Newtalk, HiTecher.
2019	**Language-based Colorization of Scene Sketches**. AI Tech Talk. Dec. 2019.
2018	**Model-guided 3D sketching**. Seamless, Japan. 27 September, 2018.
	Interactive sketch-based normal map generation with deep neural networks. Seamless, Japan. 14 May, 2018.
2017	**Color Orchestra**. MIT Technology Review. 31 March. 2017.
2014	**One-man Orchestra**. 23 Oct. 2014.
	- Apply Daily, Sing Tao Daily, Sing Pao Daily, Wen Wei Po
2012	**Augmented Mirror**. 29 Oct. 2012.
	- Hong Kong Commercial Daily, Oriental Daily News, Sing Tao Daily News, Apple Daily, Sky Post.
2010	**Parametric Reshaping of Human Bodies in Images**. Business Wire. May 2010.

Selected Research Students, Postdocs, and Visitors

Current

PhD Students
Jianxin HUANG (09/2025-08/2029; co-supervisor: Prof. Anyi Rao)
Zichen XI (09/2025-08/2029; co-supervisor: Prof. Qifeng Chen)
Boyu LI (09/2025-08/2029; co-supervisor: Prof. Zeyu Wang)
Haokai PANG (09/2025-08/2029; HKPFS; co-supervisor: Prof. Anyi Rao)
Zixuan Ye (09/2025-08/2029; HKPFS; main supervisor: Prof. Wenhan Luo)
Gongye LIU (09/2025-08/2029; main supervisor: Prof. Wenhan Luo)
Songlin YANG (09/2025-08/2029; main supervisor: Prof. Anyi Rao)
Junrong HUANG (09/2023-08/2027; HKPFS; co-supervisor: Prof. Jing Liao)
Jiaye LENG (09/2023-08/2027; co-supervisor: Prof. Miu Ling Lam)
Yulin SHEN (09/2022-08/2026; main supervisor: Prof. Zeyu Wang)
Qiaochu WANG (09/2021-08/2025; co-supervisor: Prof. Manfred Lau)

MPhil Students
Liheng CHEN (09/2025-08/2027; co-supervisor: Prof. Anyi Rao)

Past

Visiting Professor
Dr. Kun XU (07-08/2018; Associate Professor at Tsinghua University)

Research Fellow
Dr. Shizhe ZHOU (08/2017-02/2018; Associate Professor at Hunan University)

Postdoc
Dr. Hui YE (08/2022-08/2025; Latest Position: Assistant Professor, Baptist University, Hong Kong)
Dr. Kin Chung KWAN (10/2017-2/2020; PhD in Chinese University of Hong Kong; Latest Position: Assistant Professor at California State University-Sacramento)
Dr. Xin YANG (01/2017-01/2019; Latest Position: Professor at DLUT)
Dr. Zhe HUANG (11/2015-10/2016; Latest Position: Senior Algorithm Researcher, INTELLIFUSION)

PhD Graduates
Jie ZHOU (11/2020-11/2025; co-supervisor: Prof. Miu Ling Lam; Thesis: *From Sketches to Life: 3D Modeling and Animation of Hand-Drawn Art*; Latest Position: xxx)
Linzi QU (09/2021-08/2025; co-supervisor: Prof. Miu Ling Lam; Thesis: *Controllable Human-related Content Generation with Generative Models*; Latest Position: xxx)
Xuanyu WANG (10/2021-08/2024; co-supervisor: Prof. Weizhan Zhang from XJTU; Thesis: Temporal, Spatial, and Attentive Adaption for Augmented Reality Telepresence Agents; Latest Position: Assistant Professor, Xi'an Jiaotong University)
Chufeng XIAO (09/2019-06/2024; Thesis: Sketch-based 2D & 3D Content Generation with Generative Models; Latest Position: Senior Video Research Engineer, Huawei, Hong Kong)
Deng YU (09/2018-08/2023; co-supervisor: Dr. Manfred Lau; Thesis: Sketch-based Shape and Structure Analysis in Design and Fabrication; Latest Position: Assistant Professor, Shandong University, China)
Taizhou CHEN (09/2018-08/2022; main supervisor: Dr. Kening Zhu; Thesis: *Deep Learning Based Gesture Sensing Techniques for Wearable Devices*. Latest Position: Assistant Professor, Shantou University, China)
Hui YE (09/2017-08/2022; Thesis: *3D Content and Interaction Prototyping with Mobile Augmented Reality*. Latest Position: Assistant Professor, Baptist University, Hong Kong)
Wanchao SU (09/2016-08/2021; Thesis: *Sketch-Based Image Synthesis with Deep Generative Networks*. Latest Position: Research Fellow, Monash University, Australia)
Yilan CHEN (10/2014-07/2021; Thesis: *Sketching Interfaces with Structure and Context Cues*. Latest Position: Algorithm Engineer, ASML-Brion, China)
Pui Chung WONG (09/2015-01/2020; co-supervisor: Dr. Kening Zhu; Thesis: *Eyes-Free Interaction on Wearables beyond Touch Screen*. Latest Position: Postdoctoral Researcher at CityU)
Bin CHEN (09/2015-12/2019; main supervisor: Dr. Miu Ling Lam; Thesis: *Light Field Image Synthesis and Display*. Latest Position: Assistant Professor, University of Melbourne, Australia)
Quoc Huy PHAN (09/2012-04/2016; co-supervisor: Dr. Antoni Chan; Thesis: *Data-driven Methods for Capturing and Replicating Artistic Styles in Graphical Design*. Latest Position: Co-Founder, CTO; Lead Data Scientist, myrecovery.ai, UK)
Wing Ho Andy LI (09/2010-02/2015; Thesis: *Accuracy, Accessibility and Extensibility in Mobile Device Interaction*. Latest Position: Senior Researcher at Beeinventor, Hong Kong)
Pengfei XU (02/2010-01/2015; co-supervisor: Prof. Chiew-Lan Tai; Thesis: *Pattern-Aware Selection and Arrangement of Graphic Elements*. Latest Position: Associate Professor at Shenzhen University, China)

MPhil Students	**Ms. Bin BAO** (09/2010-08/2017; Thesis: *Flexible Vectorization and Colorization Tools for Line Drawings*. Now Lecturer at Shandong Women's University)
Senior RAs	**Dr. Jia CHEN** (08-10/2010; now Head of Data Science, Integrity, Grab)
RAs	**Jiaye Leng** (05/2023-08/2023; now PhD student at CityU) **Dr. Zhe HUANG** (11/2014-02/2015) **Xiaoguang HAN** (08/2011-07/2013; now Assistant Professor at Chinese University of Hong Kong (Shenzhen))
Visiting Research Students	**Wenlong MENG** (02/2017-02/2018; Ningbo University; Now Lecturer at Harbin Institute of Technology) **Dong DU** (02/2017-02/2018; University of Science and Technology of China; now Associate Researcher at Nanjing University of Science and Technology) **Qing YUAN** (12/2015-02/2017; South China University of Technology) **Yongwei NIE** (02/2014-08/2014; Wuhan University; now Associate Professor at South China University of Technology) **Changqing ZOU** (11/2013-06/2014; SIAT, Chinese Academy of Sciences; now ZJU100 Young Professor at Zhejiang University) **Jiyuan ZHANG** (12/2013-05/2014; Peking University) **Shizhe ZHOU** (06/2010-01/2011; Zhejiang University; now Associate Prof. at USTC) **Qingnan (James) ZHOU** (06-08/2010; New York University; now Sr. Research Engineer at Adobe Research) **Hanlin ZHENG** (08/2011-01/2012; Zhejiang University)
Undergrad	**Jingwan LU** (04-08/2007; co-supervised with Prof. Chiew-Lan Tai; now Head of Applied Research (Senior Director) at Adobe Research) **Xiaohuang HUANG** (07-09/2006; co-supervised with Prof. Chiew-Lan Tai; now Cofounder and Executive Chairman in Exacloud)

Teaching Experience

Instructor, HKUST

2025–present	**AMCC5110 Programming for Arts and Creativity**. Fall 2025, SFQ: 4.63 out of 5 (AIS Average (PG): xxx)
2025–present	**EMIA6500P Interdisciplinary Game Design**. Spring 2025, SFQ: 5.0 out of 5 (AIS Average (PG): 4.57)

Seminar Course Coordinator, HKUST

2025–present	**AMCC5000 Creative Convergence: Foundations of Arts and Machine Creativity**. Fall 2025
2025–present	**EMIA2010B Cross-disciplinary Seminar: Digital Media and Creative Arts**. Fall 2025

Instructor, CityUHK

2023–2023	**SM1103A Introduction to Media Computing**. Fall 2023, TLQ: 3.56 out of 5 (School Average: 4.16)
2010–2024	**SM3607 Mobile Media**. Fall 2023, TLQ: 4.0 out of 5 (School Average: 4.16) Fall 2022, TLQ: 4.25 out of 5 (School Average: 4.19) Average TLQ over 14 classes (10-21; 420 students): 6.12 out of 7 (School Average: 5.80)
2014–2024	**SM3603 3D Natural Interaction**. Spring 2024, TLQ: 4.15 out of 5 (School Average: 4.21) Spring 2023, TLQ: 4.21 out of 5 (School Average: 4.20) Average TLQ over 9 classes (14-19; 169 students): 5.97 out of 7 (School Average: 5.85)
2017–2024	**SM2715 Creative Coding**. Spring 2024, TLQ: 3.57 out of 5 (School Average: 4.21) Spring 2023, TLQ: 3.86 out of 5 (School Average: 4.20) Average TLQ over 5 classes (17-22; 137 students): 5.69 out of 7 (School Average: 5.90)

2009–2024	**Final-Year Projects (SM4602, SM4701)**.
	Selected projects:
	2015–2016, *VRgram*, Hei Ting Wong (Tamar) and Ka Ki Wong (Kee), exhibited at SIGGRAPH Asia 2016 VR Showcase
	2013–2014, *Music Conductor*, Chi Hei LAW (Thomas) and Chun Kit TSUI (Blue), exhibited at SIGGRAPH Asia 2014 Emerging Technologies and got the Best Demo Award
	2009–2010, *Augmented Mirror*, Wing Ho Andy LI, exhibited at SIGGRAPH 2012 Emerging Technologies
2014–2016	**SM2705 Creative Media Studio III**.
	Average TLQ over 2 classes (61 students): 5.77 out of 7 (School Average: 5.61)
2010–2012	**SM1205 Interactivity**.
	Average TLQ over 3 classes (97 students): 6.00 out of 7 (School Average: 5.68)
2009–2013	**SM3603 Interactivity I**.
	Average TFQ over 5 classes (139 students): 6.07 out of 7 (School Average: 5.64)
2009-2011	**SM3702 Pervasive, Mobile and Locative Media**.
	Average TFQ over 3 classes (20 students): 6.08 out of 7 (School Average: 5.66)
2009	**SM1001 Introduction to Digital Media**.
	Average TFQ over 2 classes (45 students): 5.845 out of 7 (School Average: 5.64)

School & University Services

Hong Kong University of Science and Technology

2025.09-	MA Program Director
2024.09-	Senate Member
2024	Ad-hoc EMIA Substantiation and Promotion Committee (SPC)
2024.07-	EMIA Search and Appointments Committee Chair (SAC)

City University of Hong Kong

2022.10-2024.06	Information Strategy and Governance Committee
2022.02-2024.06	University Animal Research Ethics Sub-Committee
2021.05-2024	University High Performance Computer User Committee
2021.04-2024	University Working Group on Strategic Research
2022-2024	ACIM Board Member
2021-2024	Mainland Schemes Research Degree Coordinator
2020.12-2024.06	School Staffing Committee
2020.12-2024.06	School Performance Assessment Committee
2009-2024	School Board Member
2021.06-2023.05	University Campus Space and Accommodation Sub-Committee
2022.09-2023.08	University Research Committee Member
2014-2023	School Graduate Studies Committee Member
2015.08-2020.08; 2021.01-06; 2021.11-2022.08	**Associate Dean (Research)**: School Research Committee Chairman (since 2015) School Academic Conduct Committee Chairman (since 2016) School Examination Board Member (since 2015; 18-19 Semester B: Chairman) School Undergraduate Curriculum Committee Deputy Chairman (since 2015) School Resources Planning Committee Member - Deputy Chairman (since 2015) University Research Committee Member (since 2015) University Research Sub-committee for the Preparation of RAE 2026 (since 2021.08) University Research Sub-committee for Research Awards and Mainland Grant Applications (since 2022.06) School Teaching Assignment Committee (2015-2018: Member (2015); Chairman (16-18)) School Teaching Assignment Officer (2016-2019.01)

2020.08-2021.01	**SCM Postgraduate Program Coordinator**: School Graduate Studies Committee Chairman University Board of Graduate Studies Member University Committee on Research Degrees Candidature Member
2014-2015	**BScSCM Major Leader**: School Assessment Panel BScCM Programme Committee Chairman BScCM Examination Board Chairman School Examination Board Member School Undergraduate Curriculum Committee Member
2022.01-06	University Appeals Committee
2009-2022	School NUEE Admission Tutor (15-22: Deputy)
2011-2018	BScCM Programme Committee
2014-2017	SCM Brown-Bag Seminar Coordinator
2014-2015	School Staff-Undergraduate Student Consultative Committee
2014-2015	School Research Education Committee
2019-2021	Senate Member (elected SCM representative)
2012-2015	BScCM Examination Board
2012-2014	School Academic Advisor for Minors
2010-2013	School Grade Review Committee
2009-2013	School OBTL Coordinator for Animation Studio
2010-2012	School Timetabling Officer
2010-2012	School Undergraduate Academic Review Committee
2009-2012	School Academic Advisor for FYCM
2009-2010	University Selection Panels for Government Scholarships