CHANGJIAN LI

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ACADEMIC POSITIONS

Assistant Professor *Oct. 2022 - present*
School of Informatics, University of Edinburgh, UK

Starting Researcher *Oct. 2021 - Jul. 2022*
GraphDeco Group, INRIA Sophia-Antipolis, France
Work with Dr. Adrien Bousseau

Postdoctoral Researcher *Oct. 2019 - Sep. 2021*
Smart Geometry Processing Group, University College London, UK
Hosted by Prof. Niloy Mitra

EDUCATION

The University of Hong Kong, Hong Kong, China *Aug. 2014 - Sep. 2019*
Ph.D., Department of Computer Science
Supervisor: Prof. Wenping Wang

Shandong University, Jinan, China *Sep. 2010 - Jun. 2014*
BEng, Software Engineering
Software College

PUBLICATION LIST

**corresponding author, #joint first author*

1. Duolikun Danier, Ge Gao, Chengxi Zeng, Steven McDonagh, Changjian Li, Hakan Bilen, and Oisin Mac Aodha. *Do View-Consistent Representations Matter for Camera-Controlled Video Generation?* The IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2027.

2. Anran Qi, Changjian Li, Adrien Bousseau, and Niloy J. Mitra. *A Study of the Design Space of Motion and Disocclusion Control in Video Generation.* Pacific Graphics (PG), 2026, Computer Graphics Forum (CGF) .

3. Yi Yang, Hao Pan, Yijing Cui, Alla Sheffer, **Changjian Li**. *Sketch2Arti: Sketch-based Articulation Modeling of CAD Objects.* ACM Trans. Graph., 45(4), 2026, proceedings of SIGGRAPH, 2026.

4. Yilin Liu, Niladri Shekhar Dutt, **Changjian Li**, Niloy J. Mitra. *B-repLer: Language-guided Editing of CAD Models.* ACM SIGGRAPH Conference Proceedings, 2026.

5. Haocheng Yuan, Adrien Bousseau, Hao Pan, Lei Zhong, **Changjian Li**. *DancingBox: A Lightweight MoCap System for Character Animation from Physical Proxies.* ACM Conference on Human Factors in Computing Systems (CHI), 2026. (Best Paper Honorable Mention Award).

6. Ankan Bhunia, **Changjian Li**, Hakan Bilen. 2025. *Interactive Anomaly Detection for Articulated Objects via Motion Anticipation.* The Thirty-Ninth Annual Conference on Neural Information Processing Systems (NeurIPS), 2025.

7. Jiawei Wang, Zhiming Cui, **Changjian Li**. 2025. *VQ-SGen: A Vector Quantized Stroke Representation for Creative Sketch Generation.* International Conference on Computer Vision (ICCV), 2025.

8. Miaowei Wang, **Changjian Li**, Amir Vaxman. 2025. *CanFields: Consolidating Diffeomorphic Flows for Non-Rigid 4D Interpolation from Arbitrary-Length Sequences.* International Conference on Computer Vision (ICCV), 2025.

9. Yulong Dou, Han Wu, Changjian Li, Chen Wang, Tong Yang, Min Zhu, Dinggang Shen, and Zhiming Cui. *CLIK-Diffusion: Clinical Knowledge-informed Diffusion Model for Tooth-Alignment.* Medical Image Analysis (MedIA), 2025.

10. Salvatore Esposito, Daniel Rebain, Aron Onken, **Changjian Li**, Oisin Mac Aodha. 2025. *VesselSDF: Distance Field Priors for Vascular Network Reconstruction.* International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI), 2025.

11. Lei Zhong, Chuan Guo, Yiming Xie, Jiawei Wang, **Changjian Li**. 2025. *Sketch2Anim: Towards Transferring Sketch Storyboards into 3D Animation.* ACM Trans. Graph., 44(4), 2025, proceedings of SIGGRAPH, 2025.

12. Guangshun Wei, Yuan Feng, Long Ma, Chen Wang, Yuanfeng Zhou, **Changjian Li**. 2025. *PC-Dreamer: Point Cloud Completion Through Multi-view Diffusion Priors.* IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2025.

13. Thomas Walker*, Salvatore Esposito*, Daniel Rebain, Amir Vaxman, Arno Onken, **Changjian Li**, Oisin Mac Aodha. 2025. *CrossSDF: 3D Reconstruction of Thin Structures From Cross-Sections.* IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2025.

14. Ankan Bhunia, **Changjian Li**, Hakan Bilen. 2025. *Odd-One-Out: Anomaly Detection by Comparing with Neighbors.* IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2025.

15. Longbin Ji, Lei Zhong, Pengfei Wei, **Changjian Li**. 2025. *PoseTraj: Pose-Aware Trajectory Control in Video Diffusion.* IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2025.

16. Duolikun Danier, Mehmet Aygün, **Changjian Li**, Hakan Bilen, Oisin Mac Aodha. 2025. *DepthCues: Evaluating Monocular Depth Perception in Large Vision Models.* IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2025.

17. Haocheng Yuan, Adrien Bousseau, Hao Pan, Quancheng Zhang, Niloy Mitra, **Changjian Li**. 2024. *DiffCSG: Differentiable CSG via Rasterization.* ACM SIGGRAPH Asia Conference Proceedings, 2024.

18. Zhentao Liu, Yu Fang, **Changjian Li**, Han Wu, Yuan Liu, Zhiming Cui, Dinggang Shen. *Geometry-Aware Attenuation Field Learning for Sparse-View CBCT Reconstruction.* IEEE Transactions on Medical Imaging (TMI), 2024.

19. Haocheng Yuan, Jing Xu, Hao Pan, Adrien Bousseau, Niloy Mitra, **Changjian Li**. 2024. *CADTalk: An Algorithm and Benchmark for Semantic Commenting of CAD Programs.* IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2024. (Highlight, top 10%)

20. Jiawei Wang, **Changjian Li**. 2024. *ContextSeg: Sketch Semantic Segmentation by Querying the Context with Attention.* IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2024.

21. Ankan Bhunia, **Changjian Li**, Hakan Bilen. 2024. *Looking 3D: Anomaly Detection with 2D-3D Alignment.* IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2024.

22. Guangshun Wei, Hao Pan, Shaojie Zhuang, Yuanfeng Zhou*, **Changjian Li**, 2023. *iPUNet: Iterative Cross Field Guided Point Cloud Upsampling.* IEEE Visualization and Computer Graphics (TVCG), 2023.

23. Felix Hähnlein, **Changjian Li**, Niloy Mitra, Adrien Bousseau. 2022. *CAD2Sketch: Generating Concept Sketches from CAD Sequences.* ACM Trans. Graph., 41(6), 2022, proceedings of SIGGRAPH Asia, 2022.

24. **Changjian Li**, Hao Pan, Adrien Bousseau, Niloy Mitra. 2022. *Free2CAD: Parsing Freehand Drawings into CAD Commands.* ACM Trans. Graph., 41(4), 2022, proceedings of SIGGRAPH, 2022. (Best Paper Honorable Mention Award).

25. Cheng Lin, **Changjian Li***, Yuan Liu, Nenglun Chen, Yi-King Choi, Wenping Wang*. 2021. *Point2Skeleton: Learning Skeletal Representations from Point Clouds.* IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2021. (Oral Presentation, Best Paper Nomination Award)

26. Zhiming Cui, **Changjian Li**, Lei Yang, Chunfeng Lian, Feng Shi, Wenping Wang, Dijia Wu, Dinggang Shen. 2021. *VertNet: Accurate Vertebra Localization and Identification Network from CT Images.* International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI), 2021.

27. Zhiming Cui, **Changjian Li**, Zhixu Du, Nenglun Chen, Guodong Wei, Runnan Chen, Lei Yang, Dinggang Shen, Wenping Wang. 2021. *Structure-Driven Unsupervised Domain Adaptation for Cross-Modality Cardiac Segmentation.* IEEE Transactions on Medical Imaging (TMI), 2021.

28. Zhiming Cui#, Bojun Zhang#, Chunfeng Lian, **Changjian Li***, Lei Yang, Min Zhu*, Wenping Wang, Dinggang Shen*. 2021. *Hierarchical Morphology-Guided Tooth Instance Segmentation from CBCT Images.* Information Processing in Medical Imaging (IPMI) 2021. (Oral Presentation)

29. Zhiming Cui, **Changjian Li**, Nenglun Chen, Guodong Wei, Runnan Chen, Yuanfeng Zhou, Dinggang Shen*, Wenping Wang*. 2021. *TSegNet: an Efficient and Accurate Tooth Segmentation Network on 3D Dental Model.* Medical Image Analysis (MedIA), 2021.

30. Yushiang Wong, **Changjian Li**, Matthias Niessner, Niloy Mitra. 2021. *RigidFusion: RGB-D Scene Reconstruction with Rigidly-moving Objects.* Eurographics (EG), 2021.

31. Hui Zhang, Lei Yang, **Changjian Li**, Bojian Wu, Wenping Wang. 2021. *ScaffoldGAN: Synthesis of Scaffold Materials based on Generative Adversarial Networks.* Computer-Aided Design (CAD), 2021.

32. **Changjian Li**, Hao Pan, Adrien Bousseau, Niloy Mitra. 2020. *Sketch2CAD: Sequential CAD Modeling by Sketching in Context.* ACM Trans. Graph., 39(6), 2020, proceedings of SIGGRAPH Asia, 2020.

33. Cheng Lin, Lingjie Liu, **Changjian Li**, Leif Kobbelt, Bin Wang, Shiqing Xin, Wenping Wang. 2020. *SEG-MAT: 3D Shape Segmentation Using Medial Axis Transform.* IEEE Visualization and Computer Graphics (TVCG), 2020).

34. Zhiming Cui, **Changjian Li**, Wenping Wang. 2019. *ToothNet: Automatic Tooth Instance Segmentation and Identification from Cone Beam CT Images.* IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2019.

35. Cheng Lin, **Changjian Li**, Wenping Wang. 2019. *Floorplan-Jigsaw: Jointly Estimating Scene Layout and Aligning Partial Scans.* International Conference on Computer Vision (ICCV), 2019.

36. **Changjian Li**, Hao Pan, Yang Liu, Xin Tong, Alla Sheffer, Wenping Wang. 2018. *Robust Flow-Guided Neural Prediction for Sketch-Based Freeform Surface Modeling.* ACM Trans. Graph., 37(6), 2018, proceedings of SIGGRAPH Asia 2018.

37. **Changjian Li**, Hao Pan, Yang Liu, Xin Tong, Alla Sheffer, Wenping Wang. 2017. *BendSketch: Modeling Freeform Surfaces Through 2D Sketching.* ACM Trans. Graph., 36(4), 2017, proceedings of SIGGRAPH 2017.

38. Hao Pan, Yang Liu, Alla Sheffer, Nicholas Vining, **Changjian Li**, Wenping Wang. 2015. *Flow Aligned Surfacing of Curve Networks.* ACM Trans. Graph., 36(4), 2015, proceedings of SIGGRAPH 2015.

- *Preprint*

39. Shenghui Wu, Chen Wang, Yuan Feng, Guangshun Wei, Yuanfeng Zhou, **Changjian Li**. *Scale-Blind: Point Cloud Completion under Unknown Scale. ArXiv preprint*, 2026.

40. Lei Zhong, Yi Yang, **Changjian Li**. *SMooGPT: Stylized Motion Generation using Large Language Models. ArXiv preprint*, 2026.

41. Yu Fang, Lanzhuju Mei, **Changjian Li**, Yuan Liu, Wenping Wang, Zhiming Cui, Dinggang Shen. *SNAF: Sparse-view CBCT Reconstruction with Neural Attenuation Fields. ArXiv preprint*, 2022.

42. Yuezhi Yang, Zhiming Cui, **Changjian Li**, Wenping Wang. *ToothInpaintor: Tooth Inpainting from Partial 3D Dental Model and 2D Panoramic Image. ArXiv preprint*, 2022.

RESEARCH FUNDING

Adobe Gift 2026

SnapChat Gift 2025

Adobe Gift 2025

Seed Grant, PI - £15,000 GBP 2024
Generative AI Laboratory (GAIL), University of Edinburgh

Seed Grant, PI - £6,000 GBP 2023
Bayes Center, University of Edinburgh

Start-Up Grant 2022
University of Edinburgh

AWARDS AND PRIZES

Best Paper Honorable Mention - DancingBox, ACM SIGCHI 2026
Young Investigator Award - Solid Modeling Association (SMA) 2025
Best Paper Honorable Mention - Free2CAD, ACM SIGGRAPH 2022
Best Paper Candidates - Point2Skeleton, CVPR 2021
Back cover image on Proceedings of ACM SIGGARPH 2018

YS & Christabel Lung PG Scholarship (HKU) 2014-2017
Postgraduate Scholarship (HKU) 2014-2019
President's Scholarship of Shandong University (top **0.5%**, highest student honor) 2013
Google Excellent Student Scholarship (top **0.5%**) 2013
Nation Scholarship of China (top **2%**, twice) 2011, 2012
Excellent Student of Shandong Province (top **0.05%**) 2012

RESEARCH EXPERIENCE

Research Intern Feb. 2016 - Aug. 2018
Microsoft Research Asia, Beijing *Multiple Times*

- **Mentor:** Dr. Hao Pan, Dr. Yang Liu, and Dr. Xin Tong

Research Assistant Feb. 2014 - Jun. 2014
The University of Hong Kong, Hong Kong

- **Supervisor:** Prof. Wenping Wang
- Bachelor Thesis: Sketch-based Modeling: An Intuitive Modeling Interface.

INVITED TALKS

Summer Geometry Initiative (SGI) at MIT Jul. 2026
Interactive Dynamic Content Creation.

GAMES: Graphics And Mixed Environment Seminar, China Jul. 2025
Sketch2Anim: Towards Transferring Sketch Storyboards into 3D Animation.

GAMES: Graphics And Mixed Environment Seminar, China Jun. 2024
CADTalk: An Algorithm and Benchmark for Semantic Commenting of CAD Programs.

Keynote Speaker at DIRA Workshop, ECCV2022, Tel Aviv Oct. 2022
High-quality CAD modeling via Rough Sketching.

Invited Workshop Keynote Speaker at GDC, Qingdao, China Aug. 2022
Free2CAD: Parsing Freehand Drawings into CAD Commands.

School of Software, Tsinghua University, China Dec. 2021
Creating, Analyzing and Processing 3D Data: Applications to interactive 3D modeling and to medical imaging.

School of Informatics, University of Edinburgh, UK Oct. 2021
Creating, Analyzing and Processing 3D Data: Applications to interactive 3D modeling and to medical imaging.

Stanford Human-Computer Interaction Group, Stanford, US Jan. 2021
Sketch2CAD: Sequential CAD Modeling by Sketching in Context.

AI Lab, Autodesk, US Jan. 2021
Sketch2CAD: Sequential CAD Modeling by Sketching in Context.

Software College, Shandong University, China Oct. 2019
Sketch-based Freeform Surface Modeling.

iDDA, The Chinese University of Hong Kong (Shenzhen), China Jul. 2019
SketchAShape: Sketch-based Freeform Surface Modeling.

IRC Lab, Shandong University, China Mar. 2019
Robust Flow-Guided Neural Prediction for Sketch-Based Freeform Surface Modeling.
Automatic Tooth Instance Segmentation and Identification from CBCT Images.

DGP Lab, University of Toronto, CA Sept. 2018
BendSketch: Modeling Freeform Surfaces Through 2D Sketching.

GAMES: Graphics And Mixed Environment Seminar, China Nov. 2018
Robust Flow-Guided Neural Prediction for Sketch-Based Freeform Surface Modeling.

IN THE PRESS

Google PhD Fellow 2025. 2025
Award Recipient - Lei Zhong (PhD student), and the Informatics News.

ACM SIGGRAPH Technical Paper Press Releases. 2025

3D Generative AI Transforms How We Create, Design, Interact With Digital Content (Sketch2Anim).

ACM SIGGRAPH Technical Papers Awards. 2022
Best Paper Honorable Mention Award - Free2CAD.

CCTV News Report. 2019
World Artificial Intelligence Conference (WAIC) - SketchCNN.

Computer Vision News, The magazine of the algorithm community. 2019
ICCV Daily 2019. - Floorplan-Jigsaw.

IEEE Computer Society. 2019
Poster Sessions Provoke Deep Discussions at the 2019 Conference on CVPR - ToothNet.

ACM SIGGRAPH Asia Technical Paper Press Releases. 2018
SketchCNN: Making it Easier To Transform FreeForm 2D Sketching Into 3D Models.

Seamless, Virtual Reality. 2018
A new method using CNN to model 3D surface from handwritten 2D sketch.

TEACHING

Lecturer, INFR11132 - Machine Learning Practical. UoE, Informatics.	2025-2026, FY
Lecturer, INFR11212 - Computer Vision. UoE, Informatics.	2024-2025, S2
Lecturer, INFR09051 - Informatics Large Practical. UoE, Informatics.	2024-2025, S1
Lecturer, INFR11140 - Image and Vision Computing. UoE, Informatics.	2023-2024, S2
Lecturer, INFR09051 - Informatics Large Practical. UoE, Informatics.	2023-2024, S1
Assistant, COMP0119 - Acquisition and Processig of 3D Geometry. UCL, CS.	2020-2021, S2
Assistant, COMP2396 - Object Oriented Programming and Java. HKU, CS.	2017-2018, S2
Assistant, ENGG1111 - Computer Programming and Applications. HKU, CS.	2016-2017, S1
Assistant, COMP7507 - Visualization and Visual Analytics. HKU, CS.	2015-2016, S1
Assistant, ENGG1111 - Computer Programming and Applications. HKU, CS.	2014-2015, S1

POSTDOC ADVISING

Duolikun Danier (Co-sup. with Oisin and Hakan)	2024-2026
Guangshun Wei (HKU, remote)	2023-2024

PHD ADVISING

Haocheng Yuan	2023-*present*, UoE
Ankan Bhunia (co-sup. with Hakan Belien)	2023-*present*, UoE
Lei Zhong (Google PhD Fellow 2025)	2024-*present*, UoE
Yi Yang	2026-*present*, UoE
Shuyuan Zhang	2026-*present*, UoE
Yue Ruan (co-sup. with Kartic Surb)	2023-2025, UoE
Miaowei Wang (co-sup. with Amir Vaxman)	2023-2024, UoE
Salvatore Esposito (co-sup. with Arno, Oisin)	2023-2025, UoE
Guangshun Wei (co-sup. with Yuanfeng Zhou)	2021-2023, SDU

Felix Hähnlein (co-sup. with Adrien Bousseau)	2021-2022, INRIA
Yushiang Wong (co-sup. with Niloy Mitra)	2019-2021, UCL
Zhiming Cui (co-sup. with Wenping Wang)	2018-2022, HKU
Cheng Lin (co-sup. with Wenping Wang)	2017-2021, HKU

MASTER ADVISING

Kuankuan Cheng (MScR)	2025.03-2026.05, UoE
Mingjun Yang (MScR)	2023.09-2024.09, UoE
Longbin Ji (MSc)	2024.04-2024.11, UoE
Prakash Nair (MSc)	2024.04-2024.09, UoE

UNDERGRADUATE ADVISING

Rongman Xu	2025.06-2026.05, UoE
Jiawei Wang	2023.04-2025.11, SDU
Yi Yang	2024.09-2025.05, UoE
Robin Todd	2024.09-2025.04, UoE
Aulia Ahmad Rafi	2024.09-2025.04, UoE
Jing Xu	2023.10-2023.12, UoE
Shuyuan Zhang	2023.05-2024.05, UoE
Kuankuan Cheng	2023.03-2025.02, UoE
Noah Ramsden	2023.09-2024.04, UoE
Blair Knyspel	2023.09-2024.04, UoE

THESIS COMMITTEE

Fangqiang Ding May 13, 2025
University of Edinburgh, Ph.D.
Thesis: Robust Spatial Perception with 4D Radar for Autonomous Driving

Gen Li May 5, 2025
University of Edinburgh, Ph.D.
Thesis: Efficient Affordance Learning from Human-Object Interaction

Xiang Xu Apr. 26, 2024
Simon Fraser University, Ph.D.
Thesis: Towards Automating 3D Computer-Aided Design with Deep Generative Model

Weiwei Cui Mar. 15, 2024
Queen Mary, University of London, Ph.D.
Thesis: AI-based Dentistry Image Segmentation

Linxu Fan Jan. 10, 2024
University of Edinburgh, Ph.D.
Thesis: Simulating Fracture in Brittle Objects and Thin Shell Objects for Visual Effects

Arushi Goel Oct. 13, 2023
University of Edinburgh, Ph.D.
Thesis: Investigating the Role of Linguistic Knowledge in Vision and Language Tasks

Kiyoon Kim Oct. 10, 2023
University of Edinburgh, Ph.D.
Thesis: Towards Accessible Action Recognition

Zhen Luo Aug. 30, 2023
University of Edinburgh, MScR
Thesis: Learning Scene Flow Estimation on mmWave Point Cloud for Robust Human Sensing

Zhengdi Yu Jun. 9, 2023
Durham University, MScR
Thesis: 3D Representation Learning for ShapeReconstruction and Understanding

Weizhen Ding May. 28, 2023
The Chinese University of Hong Kong, Shenzhen, MPhil
Thesis: Colonoscopy Images Analysis via Domain Alignment and Curriculum Learning

EDITORIAL POSTS, WORKSHOP ORGANIZING

Associate Editor, *IEEE TVCG*	2024-*present*
Guest Editor, *IEEE CG&A SI - Intelligent CAD in the Age of AI*	2026
Organizer, *GenAI for Healthcare Workshop*	Jul. 2, 2024
Organizer, *Beyond CAD International Workshop*	Jul. 8, 2026

CONFERENCE PROGRAM COMMITTEES

ACM SIGGRAPH: Technical Paper Committee	2026, 2027
ACM SIGGRAPH: Poster Jury Committee	2023, 2024
ACM SGGIRAPH Asia: Technical Paper Committee	2023, 2025, 2026
EuroGraphics: International Program Committee	2025, 2027
EuroGraphics: State-of-the-art-report IPC	2025
Computational Visual Media Conference (CVM)	2027
Geometry Design and Computing: Technical Paper Committee	2022, 2023

CONFERENCE SESSION CHAIRING

ACM SIGGRAPH Asia, @Tokyo - Fill the Gap: What Happened In-between?	2024
ACM SIGGRAPH, @Los Angeles - Learning for CAD	2026

REVIEWER SERVICE

ACM Transaction on Graphics (TOG)	2022,2024
ACM SIGGRAPH	2021-2026
ACM SIGGRAPH Asia	2015, 2019-2026
Conference on Computer Vision and Pattern Recognition (CVPR)	2021,2023,2024,2025,2026
International Conference on Computer Vision (ICCV)	2021, 2025
European Conference on Computer Vision (ECCV)	2026
IEEE Transactions on Visualization & Computer Graphics (TVCG)	2020-2024
Eurographics (EG)	2019-2023, 2025
ACM SIGCHI	2020, 2023
AAAI	2024
ACM Symposium on User Interface Software and Technology (UIST)	2020
Computer-Aided Design	2019, 2022, 2023
Computer Graphics Forum (CGF)	2019
Journal of Computer Science and Technology (JCST)	2019
Pacific Graphics (PG)	2018, 2023, 2024
Eurographics Symposium on Geometry Processing (SGP)	2018, 2023
International Conference on Computer-Aided Design and Graphics (CAD&CG)	2015, 2019
Geometry Design and Computing (GDC)	2022, 2023
IEEE Transactions on Image Processing (TIP)	2023
Journal of Computer Science and Technology (JCST)	2023
The Visual Computer (TVCJ)	2023
International Journal of Computer Vision (IJCV)	2025