

Chuan Yan

Postdoctoral Researcher, Stanford University

Computer Science
Stanford University
Stanford, CA

Email chuanyan@stanford.edu
Homepage nauhcny.github.io
Scholar Google Scholar

Research Areas: Human-AI Creative Systems; Computer Graphics; Human-Computer Interaction

Research Profile: I develop human-centered AI systems for drawing and visual creation, with a focus on geometric representations, structured human-AI collaboration, and computational tools for professional creative workflows.

Academic Appointment and Education

Academic Appointment

2024–Pres. Stanford University, USA
Postdoctoral Researcher
Mentor: Maneesh Agrawala

Education

2024 George Mason University, USA
Ph.D. in Computer Science
Advisor: Yotam Gingold

2003–2007 Southwest Jiaotong University, China
B.S. in Communication Engineering

Selected Publications

- **Chuan Yan**, Yong Li, Deepali Aneja, Matthew Fisher, Edgar Simo-Serra, and Yotam Gingold. *Deep Sketch Vectorization via Implicit Surface Extraction*. ACM Transactions on Graphics (Proceedings of SIGGRAPH), 2024.
- **Chuan Yan**, John Joon Young Chung, Yoon Kiheon, Yotam Gingold, Eytan Adar, and Sungsoo Ray Hong. *FlatMagic: Improving Webcomic Flat Colorization through AI-Driven Design for Professionals*. CHI, 2022.
- Amrita Ganguly* and **Chuan Yan***, John Joon Young Chung, Tong Steven Sun, Yoon Kiheon, Yotam Gingold, and Sungsoo Ray Hong. *ShadowMagic: Designing Human-AI Collaborative Support for Professionals' Comic Shadowing*. UIST, 2024. (*equal contribution)
- **Chuan Yan**, David Vanderhaeghe, and Yotam Gingold. *A Benchmark for Sketch Cleanup*. ACM Transactions on Graphics (Proceedings of SIGGRAPH Asia), 2020.

Research Funding and Awards

2025–2026 Brown Institute MAGIC Grant (Stanford University)
Principal Investigator / Lead Applicant
HiFiSketch: A high-fidelity sketch digitization system preserving stroke texture and artistic style

Professional Service

Reviewer for ACM SIGGRAPH, ACM Transactions on Graphics (TOG), ACM CHI, ACM UIST, and IEEE TVCG (2022–Present)

Research Experience

- 2022** Adobe Research, USA
Research Scientist Intern
Mentors: Deepali Aneja, Matt Fisher
- 2019–2020** George Mason University, USA
Graduate Research Assistant
Advisor: Yotam Gingold
- 2011–2018** Southwest Jiaotong University, China
Prior doctoral studies in Computer Science

Teaching

Teaching Interests

Computer Graphics; Human–Computer Interaction; Visual Computing; Human-Centered AI; Programming Foundations; Computational Design

Teaching Experience

- 2018–2024** George Mason University, USA
Teaching Assistant
Five years of teaching support experience. Supported undergraduate and graduate courses across programming, theory, graphics, and visual computing.

Courses Assisted

- CS112 Introduction to Computer Programming
- CS325 Game Design
- CS330 Formal Methods and Models
- CS351 Visual Computing
- CS530 Mathematical Foundations of Computer Science
- CS451/551 Computer Graphics
- CS452/595 Virtual Reality
- CS663 Computational Design

Publications

Graphics, HCI, and Creative AI

- Lvmin Zhang, **Chuan Yan**, Yuwei Guo, Jinbo Xing, and Maneesh Agrawala. *Generating Past and Future in Digital Painting Processes*. ACM Transactions on Graphics (Proceedings of SIGGRAPH), 2025.
- Mia Tang, Yael Vinker, **Chuan Yan**, Lvmin Zhang, and Maneesh Agrawala. *Instance Segmentation of Scene Sketches Using Natural Image Priors*. ACM Transactions on Graphics (Proceedings of SIGGRAPH), 2025.
- **Chuan Yan**, Yong Li, Deepali Aneja, Matthew Fisher, Edgar Simo-Serra, and Yotam Gingold. *Deep Sketch Vectorization via Implicit Surface Extraction*. ACM Transactions on Graphics (Proceedings of SIGGRAPH), 2024.
- Amrita Ganguly* and **Chuan Yan***, John Joon Young Chung, Tong Steven Sun, Yoon Kiheon, Yotam Gingold, and Sungsoo Ray Hong. *ShadowMagic: Designing Human-AI Collaborative Support for Professionals' Comic Shadowing*. UIST, 2024. (*equal contribution)

- **Chuan Yan**, John Joon Young Chung, Yoon Kiheon, Yotam Gingold, Eytan Adar, and Sungsoo Ray Hong. *FlatMagic: Improving Webcomic Flat Colorization through AI-Driven Design for Professionals*. CHI, 2022.
- **Chuan Yan**, David Vanderhaeghe, and Yotam Gingold. *A Benchmark for Sketch Cleanup*. ACM Transactions on Graphics (Proceedings of SIGGRAPH Asia), 2020.

Other Publications

- Zeyu Dong, Qing Li, **Chuan Yan**, and Xiaojiang Peng. *SmokeSAM: Vehicle Black Smoke Segmentation Based on SAM and LoRA Fine-Tuning*. International Conference on Machine Learning and Computer Application, 2025.
- Qing Li, Xiaojiang Peng, **Chuan Yan**, Pan Gao, and Qi Hao. *Self-Ensembling for 3D Point Cloud Domain Adaptation*. Image and Vision Computing, 2025.
- Qing Li, **Chuan Yan**, Qi Hao, Xiaojiang Peng, and Li Liu. *Graph Attentive Dual Ensemble Learning for Unsupervised Domain Adaptation on Point Clouds*. Pattern Recognition.
- Yongqi Zhang, **Chuan Yan**, Haikun Huang, Simon Su, and Lap-Fai Yu. *Mixed-Integer Programming for Adaptive VR Workflow Training*. VAMR, 2024.
- Dawei Huang, **Chuan Yan**, Qing Li, and Xiaojiang Peng. *From Large Language Models to Large Multimodal Models: A Literature Review*. Applied Sciences, 2024.
- Qing Li, Qiang Peng, Junzhou Chen, and **Chuan Yan**. *Improving Image Classification Accuracy With ELM and CSIFT*. Computing in Science and Engineering, 2019.
- Chongyang Xiang, Jiajun Xu, **Chuan Yan**, Qiang Peng, and Xiao Wu. *Generative Adversarial Networks Based Error Concealment for Low Resolution Video*. ICASSP, 2019.
- Qing Li, Qiang Peng, and **Chuan Yan**. *Multiple VLAD Encoding of CNNs for Image Classification*. Computing in Science and Engineering, 2018.
- Jiajun Xu, Wei Jiang, **Chuan Yan**, Qiang Peng, and Xiao Wu. *A Novel Weighted Boundary Matching Error Concealment Schema for HEVC*. ICIP, 2018.