Qimin Chen

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EDUCATION

Simon Fraser University, BC, Canada *03/2026 (expected)*
Doctor of Philosophy (Ph.D.), Computing Science; Graphics and Vision (GrUVi) Lab

- Advised by Professor Hao (Richard) Zhang.

University of California, San Diego, CA, U.S. 03/2020
Master of Science (M.Sc.), Computational Science; Center for Visual Computing Lab

- Advised by Professor David J. Kriegman.

Fuzhou University, Fujian, China 06/2018
Bachelor of Science, Computer Science and Technology; Honors thesis

EXPERIENCE

Adobe, Seattle, U.S. 05/2024 - 08/2024
Research Scientist (Internship)

- Performed research on 3D generative modeling with Vova Kim and Zhiqin Chen at Adobe Digital Media Geometry group, leveraging diffusion and multi-view models for controllable feedforward generative models.
- Designed method to train text-to-3D shape generation model, with strong controllability and generalizability over out-of-distribution input structure guidance. Successfully authored research paper, currently under review.
- Designed and implemented a web-based user interface that enables users to interactively edit coarse voxel grids and generate detailed 3D outputs using various text prompts in a real-time manner.
- Designed method to train the *first* image-to-3D Vector Displacement Maps (VDMs) generation model. Successfully published research paper "GenVDM" at CVPR 2025 (Highlight).
- Collaborated with interns to integrate the proposed generative models into Blender, enabling interactive modeling using Volumetric Deformation Models (VDMs).

Adobe, Seattle, U.S. 05/2023 - 08/2023
Research Scientist (Internship)

- Conducted research on 3D generative modeling with Siddhartha Chaudhuri and Vova Kim at Adobe Digital Media Geometry group, leveraging machine learning to expand the capabilities of AI-assisted 3D content creation.
- Designed method to train the Pyramid-based generative models for refining or detailizing 3D shapes using multiple geometric styles. Successfully published research paper "DECOLLAGE" at ECCV 2024.
- Designed and implemented a user interface that enables users to interactively edit coarse voxel grids, label different part regions, select different geometric styles for each part, and generate detailed 3D outputs in a real-time manner.

PUBLICATIONS

- ART-DECO: Arbitrary Text Guidance for 3D Detailizer Construction - Under review
  Qimin Chen, Yuezhi Yang, Yifan Wang, Vladimir Kim, Siddhartha Chaudhuri, Hao Zhang, Zhiqin Chen.
- GenVDM: Generating Vector Displacement Maps From a Single Image - CVPR 2025 (Highlight)
  Yuezhi Yang, **Qimin Chen**, Vladimir Kim, Siddhartha Chaudhuri, Qixing Huang, Zhiqin Chen.
- DECOLLAGE: 3D Detailization by Controllable, Localized, and Learned Geometry Enhancement - ECCV 2024
  Qimin Chen, Zhiqin Chen, Vladimir Kim, Noam Aigerman, Hao Zhang, Siddhartha Chaudhuri.
- DAE-Net: Deforming Auto-Encoder for Fine-grained Shape Co-segmentation - SIGGRAPH 2024 (Conference)
  Zhiqin Chen, **Qimin Chen**, Hang Zhou, Hao Zhang.

- ShaDDR: Interactive Example-Based Geometry and Texture Generation via 3D Shape Detailization and Differentiable Rendering - SIGGRAPH Asia 2023 (Conference)
  Qimin Chen, Zhiqin Chen, Hang Zhou, Hao Zhang.
- D^2CSG: Unsupervised Learning of Compact CSG Trees with Dual Complements and Dropouts - NeurIPS 2023
  Fenggen Yu, **Qimin Chen**, Maham Tanveer, Ali Mahdavi-Amiri, Hao Zhang.
- UNIST: Unpaired Neural Implicit Shape Translation Network - CVPR 2022
  Qimin Chen, Johannes Merz, Aditya Sanghi, Hooman Shayani, Ali Mahdavi-Amiri, Hao Zhang.
- A New Deep Learning Engine for CoralNet - ICCV 2021 (Workshop)
  Qimin Chen, Oscar Beijbom, Stephen Chan, Jessica Bouwmeester, David Kriegman.
- Topology-Aware Single-Image 3D Shape Reconstruction - CVPR 2020 (Workshop)
  Qimin Chen, Vincent Nguyen, Feng Han, Raimondas Kiveris, Zhuowen Tu.

TECHNICAL

Technical tools: PyTorch, SciKit, Python, LaTeX, OpenCV, WebGL, Jupyter Notebook, Git, Visual Studio, Shell, Linux

Research concepts: Generative Modeling, Computer Vision (CV), Computer Graphics (CG), Geometric Modeling, 3D Reconstruction, Shape Synthesis and Analysis, CAD Modeling, Machine Learning, Deep Learning, Natural Language Processing (NLP), Transfer Learning

ADDITIONAL EXPERIENCE

Simon Fraser University, BC, CANADA 01/2021 - Present
Teaching Assistant – School of Computing Science

- CMPT 420/728: Deep Learning
- CMPT 762: Computer Vision
- CMPT 464/764: Geometric Modeling in Computer Graphics

University of California, San Diego, CA, U.S. 09/2018 - 12/2020
Research Assistant – Department of Computer Science and Engineering

- Developed a deep neural network for manual, semi-automatic and automatic analysis of coral reef images. Published research paper at ICCV 2021 (Workshop).
- Deployed the trained network as the core neural engine that powers the official UCSD's CoralNet website.

Research Assistant – Department of Cognitive Science

- Conducted fundamental research on topology-aware 3D shape reconstruction using deep learning. Published research paper at CVPR 2020 (Workshop).

Teaching Assistant – Department of Computer Science and Engineering

- CSE 152: Introduction to Computer Vision

ACADEMIC SERVICES

Reviewer

- TOG, SIGGRAPH (2025), SIGGRAPH Asia (2023, 2024, 2025), CVPR (2023, 2024, 2025), ICCV (2025), ECCV (2024), Eurographics (2025), TVCG, AAAI (2024).

AWARDS & RECOGNITIONS

- Outstanding Reviewer for CVPR 2025.
- SFU Ph.D. Research Scholarship, 2023, 2024.
- SFU Graduate Fellowship, 2021, 2022, 2023, 2024.
- SFU Inaugural Outstanding TA Award, 2022.