Siqi Wang

Contact info

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GitHub: https://github.com/rachael-wang
Google Scholar: https://scholar.google.com/citations?user=mC4US5IAAAAJ&hl=en&oi=ao

Education

New York University — New York, USA
Ph.D. in Computer Science (GPA: 3.91/4.0) — 2019–2025

- Research Interests: Computer Graphics, Geometry Processing, Physical Simulations.
- Advisors: Prof. Daniele Panozzo, Denis Zorin.

Shanghai Jiao Tong University — Shanghai, CN
Bachelor of Engineering in Electrical Engineering (GPA: 3.7/4.0) — 2015–2019

- Graduate with Outstanding Honor in Shanghai (Top 5%)

National University of Singapore — Singapore, SG
Exchange Program of 2017/18 SEM1 (GPA: 4.7/5.0) — 2017–2017

- Inbound Scholar of TFI LEaRN Programme (50 Asiawide)

Publications

[1] **Siqi Wang**, Janos Meny, Izak Grguric, Mehdi Rahimzadeh, Denis Zorin, Daniele Panozzo, and Hsueh-Ti Derek Liu, "Solid-Shell Labeling for Discrete Surfaces", *SIGGRAPH Asia*, 2025.

[2] José E Cruz Serrallés*, Ilias I Giannakopoulos*, **Siqi Wang***, Damien Chen, Daniel Zint, Daniele Panozzo, Denis Zorin, and Riccardo Lattanzi, "An Optimization Framework for the Design of Radiofrequency Coils for Magnetic Resonance Imaging", *bioRxiv*, pp. 2025–08, 2025.

[3] Chenxi Liu, **Siqi Wang**, Matthew Fisher, Deepali Aneja, and Alec Jacobson, "2D Neural Fields with Learned Discontinuities", in *Computer Graphics Forum (Eurographics)*, 2025.

[4] **Siqi Wang**, Chenxi Liu, Daniele Panozzo, Denis Zorin, and Alec Jacobson, "Bézier Spline Simplification Using Locally Integrated Error Metrics", in *SIGGRAPH Asia 2023 Conference Papers*, 2023, pp. 1–11.

[5] Chelsea Tymms, **Siqi Wang**, and Denis Zorin, "Appearance-preserving Tactile Optimization", *ACM Transactions on Graphics (TOG)*, vol. 39, no. 6, pp. 1–16, 2020.

[6] Yuwei Xiao, Szeyu Chan, **Siqi Wang**, Bo Zhu, and Xubo Yang, "An Adaptive Staggered-tilted Grid for Incompressible Flow Simulation", *ACM Transactions on Graphics (TOG)*, vol. 39, no. 6, pp. 1–15, 2020.

[7] Ruibo Liu, Qijia Shao, **Siqi Wang**, Christina Ru, Devin Balkcom, and Xia Zhou, "Computational fabrics for monitoring human joint motion", *US Patent App. 16/911,877*, Dec. 2020.

[8] Ruibo Liu, Qijia Shao, **Siqi Wang**, Christina Ru, Devin Balkcom, and Xia Zhou, "Reconstructing Human Joint Motion with Computational Fabrics", *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)*, vol. 3, no. 1, pp. 1–26, 2019.

Work Experience

ByteDance San Jose, CA, USA
Research Engineer in Computer Graphics, Physics and Animation Aug–now 2025

Roblox Corporation San Mateo, CA, USA
Research Intern, Engine Group (Geometry) May–Aug 2024

- Proposed a novel algorithm to automatically segment solids and shells from triangle soups, resulting in a top-tier conference paper submission.
- Experimented and implemented methods for robust hole filling with mesh/texture preservation.
- Developed the entire pipeline to automatically repair nonmanifold, nonwatertight meshes in Roblox Studio in a physically meaningful way.

Adobe Research San Jose, CA, USA
Research Scientist Intern, Graphics (2D&3D), BIG Lab May–Dec 2022

- Developed a novel technique for simplifying Bézier splines while preserving high visual fidelity. This approach demonstrates significant quantitative improvements over existing methods and can be effectively used to produce temporally-coherent vector graphics animations, resulting in a top-tier conference paper publication and a filed patent.
- Won the Code Quality Champion (Best Project in C++) in Adobe Code Quality Jam 2022.

Teaching

- **Geometric Modeling** (CSCI-GA.3033-018) Spring 2021
  Teaching Assistant at New York University (https://github.com/danielepanozzo/gp)
  Topics include *surface reconstruction, mesh smoothing and optimization, mesh parametrization, mesh deformation and editing, skeletal animation and skinning, fabrication-aware modeling, etc.*
- **Machine Learning** (CSCI-GA.2565-001) Spring 2022
  Grader at New York University (https://rajeshhr.github.io/ml-2022/)
  Topics include *generalized linear models, graphical models, causal inference, reinforcement learning, etc.*

Skills

- **Programming languages:** C/C++, Python, MATLAB, JavaScript, SQL
- **Graphics Library:** Libigl, PolyFEM, OpenGL, CGAL, ParaView
- **Rendering Software:** Blender, Houdini
- **Machine Learning Library:** PyTorch

Scholarships and Awards

- WiGRAPH (Women in Computer Graphics Research) Rising Star 2022 2022
- DeepMind Scholarship 2021
- MacCracken Fellowship (New York University) 2019
- Graduate with Outstanding Honor in Shanghai 2019
- Hongyi Scholarship (Undergraduate Research Excellence Scholarship) 2018
- Scholarship of the Temasek Foundation International Leadership Enrichment and Regional Networking Programme (TFI LEaRN) 2017
- First-class Scholarship of Lee Fushou Fund 2017

- Academic Excellence Scholarship, SJTU 2016–2018
- First Prize in the Undergraduate Mathematical Contest in Modeling of China 2016
- Mathematical Contest in Modeling, Honorable Mention 2018
- Award for Outstanding Student Cadres, SJTU 2016
- First Place in High School Students Mathematics Contest in China 2014

Academic Experience

- **SIGGRAPH Asia Reviewer** 2025
- **SIGGRAPH Asia Reviewer** 2024
- **IMWUT Reviewer** 2024

Invited Talks

- **Bézier Spline Simplification Using Locally Integrated Error Metrics** 2023
  SIGGRAPH Asia 2023 Sydney
- **Lightning Talk at WiGRAPH Rising Stars Workshop 2023** 2023
  SIGGRAPH 2023 Los Angeles
- **A posteriori hp adaptive FEM solver for physical simulation** 2023
  Capital Graphics 2023
- **Lightning Talk at WiGRAPH Rising Stars Workshop 2022** 2022
  SIGGRAPH 2022 Vancouver
- **Vector Graphics Liquify** 2022
  The University of Toronto's Dynamic Graphics Project (DGP)

Leadership and Activity

- Deputy President of the Associations' Union, SJTU 2017–2018
  Organized a variety of activities for all the associations including SJTU Alumni Day
- Vice President of Microsoft Student Club, SJTU 2017–2018
  Held seminars, lectures and events e.g. Microsoft Penta Hackathon 2016
- Inbound Scholar of TFI LEaRN Programme, NUS 2017
  Presented at the TFI LEaRN Young Asian Leaders Forum