

Zhouyuan Chen

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Education

- Sep. 2023 – Current New York University, New York, NY
Master of Science(M.Sc.), Computer Science
GPA:3.778/4
- Sep. 2019 – May 2023 Zhejiang University of Technology, Hangzhou, China
Bachelor of Engineering(B.E.), Software Engineering
GPA:88.6/100

Research Interests

Computer Graphics, Geometry Processing, Numerical Simulation

Research Experience

- Jun. 2023 – Current New York University, New York, NY
Research Assistant at Geometric Computing Lab
Advisor: [Daniele Panozzo](#)

- Hybrid Element Shells: • (Ongoing Project) Developing an algorithm to construct prism-dominant shell meshes for anisotropic boundary layers
- Image Simulation: • Designed a pipeline to automate biomechanical simulations and implemented a plugin to streamline workflows.
- Topological Offsets: • Designed and implemented an offsets generation algorithm and contributed to the Wildmeshing Toolkit C++ library.

- Aug. 2021 – May 2023 Zhejiang University of Technology, Hangzhou, China
Research Assistant at Institute of Digital Media Technology
Advisor: [Jiazhou Chen](#)

- Collision Detection and Visualization: • Implemented several broad-phase collision detection algorithms and integrated them into medical software, while also developing a custom algorithm to visualize collisions between different objects.
- Undercut Model Generation: • Designed and implemented a custom algorithm to reconstruct the undercut model of human teeth.

Publications & Preprints

Submitted for Publication

- W1. Zint, D., **Zhouyuan Chen**, Zhu, Y., Zorin, D., Schneider, T. & Panozzo, D. *Topological Offsets* 2024. arXiv: [2407.07725](https://arxiv.org/abs/2407.07725) [cs.CG]. <https://arxiv.org/abs/2407.07725>.

Teaching Experience

New York University

Teaching Assistant
Geometric Modeling(CSCI-GA.3033-018) Spring 2024, Spring 2025

Grader
Intro to Computer Science(CSCI-UA.101) Spring 2024

Tools & Software

3D Slicer: Image Simulator

Software that generates simulation-ready mesh from medial images with boundary conditions.

Hansfive Company Software: Virtual Gums

Software that assists dental staff in constructing tooth models.

Awards & Honors

2020-2022 Academic Excellence Scholarship, Zhejiang University of Technology

Technical Skills

Programming Language: C++, C, Python, Java, MATLAB
Languages: Chinese (native), English (fluent)

References

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