

# Zhouyuan Chen

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## Education

Sep. 2023 – Current	New York University, New York, NY Master of Science(M.Sc.), Computer Science GPA:3.667/4
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: <a href="#">Daniele Panozzo</a>
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: <a href="#">Jiazhou Chen</a>
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 \[cs.CG\]](https://arxiv.org/abs/2407.07725). <https://arxiv.org/abs/2407.07725>.

## Teaching Experience

### New York University

2024            Grader, Intro to Computer Science(CSCI-UA 101-10)  
2024            Teaching Assistant, Geometric Modeling(CSCI-GA.3033-018)

## 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

### Zhejiang University of Technology

2020-2022    Academic Excellence Scholarship

## Technical Skills

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

## References

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