

YunFan Zhou

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EDUCATION

New York University, New York, NY

- PhD. Candidate in Computer Science, Geometric Computing Lab 2020 Sep –

University of Texas at Austin, Austin, TX

gpa 3.938 / 4.0

- Bachelor of Science (B.S.) in Computer Science, 2017 Aug – 2020 May
- Bachelor of Science (B.S.) in Mathematics

Wesleyan College, Macon, GA

gpa 4.0/4.0

- Bachelor of Art (B.A.) in Applied Mathematics 2015 Aug – 2017 May

RESEARCH PROJECTS

- **Garment Visual Detail Editing and Simulation**, CLO Virtual Fashion 2025 May– 2025 August
Generated garment visual detail geometry data in clothes simulation.
- **Topology Consistent Meshing for CAD Models**, 2024 May– Now
Developed methods for generating topology-accurate triangle meshes with error guarantees for CAD designs, reducing failure cases and manual iterations in preparation for physical simulations.
- **Adaptive Meshing of Displacement Surfaces**, 2022 Sep– 2024 April
Developed algorithms to generate high-quality, self-intersection-free, feature-adaptive meshes from base meshes and displacement maps, within user-specified error bounds, enabling robust downstream applications such as simulation, boolean operations, and rigging.
- **GPU Mesh Decimation for Interactive Applications**, Adobe 2022 May– 2022 Aug
GPU (CUDA) implementation for mesh decimation on the fly. Achieved 60x speed-ups compared to serial CPU implementation and 15x parallel CPU implementation.
- **Wildmeshing Toolkit: Declarative Specification for Unstructured Mesh Editing Algorithms**, *SIGGRAPH Asia 2023* 2021 Nov– 2022 May
An open-source easy-to-parallel geometry modeling SDK ([wmtk-toolkit github repo](#)) for fast and easy customization of geometric processing algorithms implementations. It removes low-level mesh-maintenance details and guarantees meshing algorithm objectives. Furthermore, it parallelizes operations on meshes safely.
- **Optimizing Contact-Based Assemblies**, *SIGGRAPH Asia 2022* 2020 Sep– 2021 Sep
Developed a shape-derivative-based framework for optimizing assembly geometries with contact and friction, leveraging differentiable simulation for automated shape parameter updates.
- **Predict Light Directions in Images Using ResNet50**, The Technical University of Munich (TUM) & Munich University of Applied Sciences (HM), Germany (in remote) 2020 May - Aug
Using a data set of 160000 synthetic and real images to develop and train a modified deep learning ResNet to detect the azimuth and elevation of the light source in the image and to predict lighting information for a given image.

WORKING EXPERIENCE

- **R&D Summer Intern**, CLO Virtual Fashion 2025 May –Aug
See research project [Garment Visual Detail Editing and Simulation](#)
- **Research Engineer Intern**, Adobe 2022 May –Aug
See research project [GPU Mesh Decimation for Interactive Applications](#)
- **Technology Summer Intern**, Schlumberger 2019 June –Aug
Data visualization engineer. Worked on visualizing oil, gas, and seismic data using Unity game engine. Enable users to dynamically visualize extensive data sets that are available through the Data Ecosystem stored on the Schlumberger cloud.

TEACHING EXPERIENCE

- **TA for Geometry Processing**, NYU 2022 Spring
Responsibility includes leading recitations for the class of 60 students, holding office hours 3 times a week, and grading coding projects.

AWARDS & SCHOLARSHIPS

- **Rising Stars**, WiGRAPH 2023 – 2024
A two-year program of mentorship and workshops that recognizes outstanding women researchers and students in the graphics community and help them navigate the job market within computer graphics research
- **MacCracken Fellow**, NYU 2020 Fall – 2025 Spring
Researching, attending graduate education and teaching at NYU Graduate School of Art and Sciences

- **College Scholar for College of Natural Science**, University of Texas, Austin 2019 Spring
For juniors/seniors attaining a GPA of at least 3.5.
- **Moncrief Research Summer Fellowship**, University of Texas, Austin 2018 Summer
- **Freshman Research Initiative Summer Fellowship**, University of Texas, Austin 2018 Summer
- **President Scholar**, Wesleyan College 2015 Fall – 2017 Spring
4 times winner for demonstrating academic excellency
- **Trustee Scholarship**, Wesleyan College 2015 Fall – 2017 Spring
- **Margaret Frances Edenfield Math Scholarship**, 2017 2017 – 2018
For rising Math major seniors or juniors who demonstrate excellence in Mathematics.
- **Beverly and Gilbert Held Endowed Scholarship**, 2016 2016 – 2017
For students outstanding in Mathematics and Computer Science.

ACTIVITIES

- **Facilitator for High School Girls CS Visit Day**, NYU 2020 Fall
Volunteered to facilitate online CS visit days for high school girls during the pandemic.
- **Women in CS Dell-Nell Mentor**, University of Texas, Austin 2018 Fall
Serving as a mentor for freshmen of Women in Computer Science at UT, Austin, working with expected female undergraduate students to share experience in CS and help them transition to college life.
- **Math Club Vice President**, Wesleyan College 2016 Fall – 2017 Spring

[CV compiled on 2025-09-16]