Zhan ZHANG

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Address: 2306 Academic Surge, University of California, Davis

Education

University of California, Davis   Sep 2021-
PhD, Computer Science

University of Science and Technology of China   Sep 2017- Jul 2021
B.S with Honors, Applied Mathematics; B.S, Computer Science

Publications

- **Position-Based Nonlinear Gauss-Seidel for Quasistatic Hyperelasticity**   2024
  Yizhou Chen, Yushan Han, Jingyu Chen, **Zhan Zhang**, Alex Mcadams, Joseph Teran
  ACM Transactions on Graphics (SIGGRPAH) 2024

- **Computational Design of Flexible Planar Microstructures**   2023
  Zhan Zhang, Christopher Brandt, Jean Jouve, Yue Wang, Tian Chen, Mark Pauly, Julian Panetta
  ACM Transactions on Graphics (SIGGRPAH Asia) 2023

- **Modeling and Fabrication with Specified Discrete Equivalence Classes**   2021
  Zhong-Yuan Liu, **Zhan Zhang**, Di Zhang, Chunyang Ye, Ligang Liu, Xiao-Ming Fu
  ACM Transactions on Graphics (SIGGRPAH) 2021

- **Gaze-Contingent Retinal Speckle Suppression for Perceptually-Matched Foveated Holographic Displays**   2021
  Praneeth Chakravarthula, **Zhan Zhang**, Okan Tursun, Piotr Didyk, Qi Sun, Henry Fuchs
  IEEE Transactions on Visualization and Computer Graphics (Proceedings of ISMAR) 2021

Research Experiences

University of California, Davis   Sep 2021-
PhD Candidate
Advisor: Prof. Julian Panetta and Prof. Joseph Teran
- Work on computational design of elastic metamaterials for large deformation
- Developed the first complete solution for designing microstructures over large deformation without collision
- Developed multigrid solver for cloth simulation using position-based nonlinear gauss-seidel

Tandon School of Engineering, New York University   Jul 2020- Oct 2020
Summer Intern
Advisor: Prof. Qi Sun
- Proposed a method for the reduction of the perceived speckle noise by taking foveal and peripheral vision characteristics of the HVS into account in our perceptually-aware holographic projections
- Implement light propagation framework in PyTorch

Graphics & Geometric Computing Laboratory, University of Science and Technology of China   Sep 2019- May 2020
Undergraduate Research Fellow
Advisor: Prof. Xiaoming Fu and Prof. Ligang Liu
- Achieved a method of remeshing by local equidistant embedded anisotropic surface equivalence mesh
- Developed a geometric algorithm for infinite triangle distance norm

Work Experiences

Epic Games   Jul 2024-
Research Intern
- Help enhance and maintain core systems of Unreal Engine
- Developed multigrid solver for cloth simulation using position-based nonlinear gauss-seidel

Professional Service

Reviews
- SIGGRAPH Asia

Teaching Experiences

University of California, Davis   Sep 2021-
Teaching Assistant
Advisor: Prof. Julian Panetta and Prof. Joseph Teran
- Graded, held office hours, led recreation sections, and occasionally lectured for UCDavis's
  ECS 32A, ECS 36C, ECS 130

Awards & Scholarship

GGCS Spring Research Fellowship	2023
International Student Research Award	2021
"Outstanding Student" Scholarship in USTC	2017, 2019

Leadership & Activities

Student Union of the School of Gifted Young, USTC | Officer   Sep 2017- Sep 2018
Student Union of USTC | Officer   Sep 2017- Sep 2018

Skills

- Proficient in language: C++, Python
- Proficient in software: LaTeX, MATLAB, Houdini, Blender, Unreal Engine