

RULIN CHEN

Ph.D at SUTD ◇ Personal page: linsanity81.github.io
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EDUCATION

Ph.D in Singapore University of Technology and Design, Singapore 2020.9 - 2024.6

Supervisor: [Prof. Peng Song](#)

Thesis: Modeling and Design of Assemblies with Discrete Equivalence Classes

Research interests: Computer Graphics, Geometry Modeling, and Computational Fabrication

Exchange Student in The Chinese University of Hong Kong, China 2019.9 - 2020.6

Supervisor: [Prof. Zhenglong Sun](#)

B.S in Shantou University, China 2016.9 - 2020.6

Supervisor: [Prof. Chuliang Wei](#)

PUBLICATIONS / UNDER PEER REVIEW

[4] Inverse Tiling of Finite Domains

Rulin Chen, Peng Song, Chi-Wing Fu

Submitted to SIGGRAPH Asia 2024 (journal-track)

[3] Modeling Wireframe Meshes with Discrete Equivalence Classes

Pengyun Qiu★, **Rulin Chen**★ (co-first author), Peng Song, Ying He

Submitted to SIGGRAPH Asia 2024 (journal-track)

[2] Masonry Shell Structures with Discrete Equivalence Classes

[\[code\]](#) [\[project page\]](#)

Rulin Chen, Pengyun Qiu, Peng Song, Bailin Deng, Ziqi Wang, Ying He

ACM Transactions on Graphics (Proc. of SIGGRAPH journal-track), 2023

[1] Computational Design of High-level Interlocking Puzzles

[\[code\]](#) [\[project page\]](#)

Rulin Chen, Ziqi Wang, Peng Song, Bernd Bickel

ACM Transactions on Graphics (Proc. of SIGGRAPH journal-track), 2022

SIGGRAPH 2022 Technical Papers Honorable Mention Award

RESEARCH ACTIVITY

Jounral Reviewer of ACM Transactions on Graphics, The Visual Computer, Computers & Graphics

Conference Reviewer of SIGGRAPH Asia 2024, PG 2024, CGI 2023

Invited Talk at SIGGRAPH 2022, 2023

Invited Lab Demo at SIGGRAPH 2022

Co-organizer of Computational Fabrication Seminar 2021, 2022 [\[website\]](#)

TEACHING EXPERIENCE

Project Leader in [Summer Geometry Initiative](#), MIT

August 2024

Hosted by [Prof. Justin Solomon](#)

Remote

Teaching Assistant for Computer Graphics

2021 Spring and 2022 Spring

Singapore University of Technology and Design

Singapore

MENTORING

Yuhang Wang (RA at SUTD -> PhD student at University of South Florida)

Nov 2023 - present

Pengyun Qiu (RA at SUTD -> PhD student at Simon Fraser University)

Oct 2022 - Mar 2024

Zebin Chen (RA at SUTD)

June 2022 - present

DEDICATED PATENTS

[6] Power battery with positive and negative electrodes of battery cell welded on the same side

[5] End effector for natural orifice surgery

[4] Natural orifice operation mechanical arm

[3] Natural cavity surgical mechanical arm

[2] Aircraft luggage loading and unloading robot and control method thereof

[1] Aircraft luggage loading and unloading robot

REFERENCES

Ph.D Advisor: Prof. **Peng Song**

peng_song@sutd.edu.sg

Assistant Professor of Computer Science, Pillar of Information Systems Technology and Design, SUTD

Collaborator: Prof. **Bernd Bickel**

bickelb@ethz.ch

Professor, ETH Zurich

Collaborator: Prof. **Ying He**

yhe@ntu.edu.sg

Associate Professor, School of Computer Science and Engineering, Nanyang Technological University

Collaborator: Dr. **Ziqi Wang**

ziqi.wang@inf.ethz.ch

Postdoctoral Reaseacher at Computational Robotics Lab (CRL), ETH Zurich