

Ziqi Wang | Curriculum Vitae

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Education

ETH Zurich

Postdoc, Zurich

Computational Robotics Lab & NCCR Digital Fabrication

Department of Computer Science

Advisor: Stelian Coros

Switzerland

2022 - present

EPFL

PhD, Lausanne

Geometric Computing Laboratory

School of Computer and Communication Sciences

Advisor: Mark Pauly (EPFL, Switzerland)

Co-Advisors: Peng Song (SUTD, Singapore)

Switzerland

2017 - 2021

University of Science and Technology of China

Bachelor, Hefei

Information and Computational Science, Department of Mathematics

China

2013 - 2017

Publications

- [1] **Ziqi Wang**, Florian Kennel-Maushart, Yijiang Huang, Bernhard Thomaszewski, and Stelian Coros. A temporal coherent topology optimization approach for assembly planning of bespoke frame structures. *ACM Transactions on Graphics (SIGGRAPH 2023)*, 42(4), 2023.
- [2] Rulin Chen, Pengyun Qiu, Peng Song, Bailin Deng, **Ziqi Wang**, and Ying He. Masonry shell structures with discrete equivalence classes. *ACM Transactions on Graphics (SIGGRAPH 2023)*, 42(4), 2023.
- [3] Rulin Chen, **Ziqi Wang**, Peng Song, and Bernd Bickel. Computational design of high-level interlocking puzzles. *ACM Transactions on Graphics (SIGGRAPH 2022)*, **Best Paper Honorable Mention**, 41(4):1–15, 2022.
- [4] **Ziqi Wang**, Peng Song, and Mark Pauly. Mocca: Modeling and optimizing cone-joints for complex assemblies. *ACM Transactions on Graphics (SIGGRAPH 2021)*, 40(4):1–14, 2021.
- [5] **Ziqi Wang**, Peng Song, and Mark Pauly. State of the art on computational design of assemblies with rigid parts. *Computer Graphics Forum (Proc. of Eurographics)*, 2021.
- [6] Yang Xu, **Ziqi Wang**, Siyu Gong, and Yong Chen. Reusable support for additive manufacturing. *Additive Manufacturing*, 39:101840, 2021.
- [7] **Ziqi Wang**, Peng Song, Florin Isvoranu, and Mark Pauly. Design and structural optimization of topological interlocking assemblies. *ACM Transactions on Graphics (SIGGRAPH Asia 2019)*, 38(6), 2019.

- [8] **Ziqi Wang**, Peng Song, and Mark Pauly. DESIA: A general framework for designing interlocking assemblies. *ACM Transactions on Graphics (SIGGRAPH Asia 2018)*, 37(6), 2018. Article No. 191.
- [9] **Ziqi Wang**, Jack Szu-Shen Chen, Jimin Joy, and Hsi-Yung Feng. Machined sharp edge restoration for triangle mesh workpiece models derived from grid-based machining simulation. *Computer-Aided Design and Applications*, 15(6):905–915, 2018.
- [10] Peng Song, Bailin Deng, **Ziqi Wang**, Zhichao Dong, Wei Li, Chi-Wing Fu, and Ligang Liu. CofiFab: Coarse-to-fine fabrication of large 3d objects. *ACM Transactions on Graphics (SIGGRAPH 2016)*, 35(4), 2016. Article 45.

Teaching experience

ETH Zurich <i>Teaching Assistant, Zurich</i> Linear Algebra (2022)	Switzerland Feb 2022 - present
EPFL <i>Teaching Assistant, Lausanne</i> Linear Algebra (2020) Introduction to Computer Graphics (2019, 2020) Digital 3D Geometry Processing (2018, 2019) Geometric Computing (2021)	Switzerland Sep 2017 - Dec 2021

Academic experience

NCCR Digital Fabricaton <i>Researcher, Lausanne</i> Topic: Complex assemblies and digital timber	Switzerland 2018 -
ETH Zurich <i>Academic Visiting, Zurich</i> Host: Gramazio Kohler Research Topic: Synchronized robotic assembly	Switzerland 2021 Summer
The University of British Columbia <i>Research Assistant, Vancouver</i> Host: Prof.Dr.Hsi-Yung Feng Topic: CNC machining simulation	Canada 2016 Summer

Professional service

Reviewer:

- o ACM SIGGRPAH 2022, 2023
- o IEE TVCG 2020, 2023
- o ACM TOG 2021

Talks

<i>The Future Of Architecture is Powered by Computational Design And Robotics.</i> Hasso-Plattner-Institut	2023.1
<i>Computational Assemblies: Analysis, Design, and Fabrications</i>	2022.4

Eurographics

MOCCA: Modeling and Optimizing Cone-joints for Complex Assemblies 2021.8
ACM SIGGRAPH

State of the Art on Computational Design of Assemblies with Rigid Parts 2021.5
Eurographics State of The Art Report

Computational Assembly for Fabrication: Shape Optimization 2021.3
Computational Fabrication Seminar

Design and Structural Optimization of Topological Interlocking Assemblies 2019.12
ACM SIGGRAPH Asia

DESIA: A General Framework for Designing Interlocking Assemblies (with Peng Song) 2018.12
ACM SIGGRAPH Asia