Ziqi Wang | Curriculum Vitae

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Appointment

The Hong Kong University of Science and Technology — **Hong Kong, China**
Assistant Professor — *2024.12 - present*
Division of Integrative Systems and Design (ISD)
Academy of Interdisciplinary Studies (AIS)

Education

EPFL — **Switzerland**
***PhD** in Computer Graphics* — *2017 - 2021*
Geometric Computing Laboratory
School of Computer and Communication Sciences
Advisor: Prof. Mark Pauly (EPFL, Switzerland)
Co-Adviosr: Prof. Peng Song (SUTD, Singapore)

University of Science and Technology of China — **China**
***Bachelor** in Mathematics* — *2013 - 2017*
Information and Computational Science
Department of Mathematics
Advisor: Prof. Ligang Liu

Professional Experience

EPFL — **Switzerland**
***Postdoc** in Architecture* — *2024 - 2025*
CRCL & Sycamore Lab
Department of Computer Science
Advisors: Prof. Stefana Parascho & Maryam Kamgapore

ETH Zurich — **Switzerland**
***Postdoc** in Robotics* — *2022 - 2024*
Computational Robotics Lab and NCCR Digital Fabrication
Department of Computer Science
Advisor: Prof. Stelian Coros

Publications

[1] Yijiang Huang*, **Ziqi Wang***, Yi-Hsiu Hung, Chenming Jiang, Aurele L. Gheyselinck, and Stelian Coros (*co-first authors). Computational design and fabrication of reusable multi-tangent bar structures. *Computer-Aided Design*, 188:103907, 2025.

[2] **Ziqi Wang**, Wenjun Liu, Jingwen Wang, Gabriel Vallat, Fan Shi, Stefana Parascho, and Maryam Kamgarpour. Learning to assemble with alternative plans. *ACM Transactions on Graphics (SIGGRAPH 2025)*, 44(4), July 2025.

[3] Yuanpeng Liu, Yi Min Xie, Ting-Uei Lee, **Ziqi Wang**, and Nico Pietroni. Free-form surface approximation using rotational patches. *ACM Transactions on Graphics (SIGGRAPH 2026)*, 44(5), June 2025.

[4] Xudong Yang, Mingchao Liu, Bojian Zhang, **Ziqi Wang**, Tianyu Chen, Yuan Zhou, Yu Chen, K. Jimmy Hsia, and Yifan Wang. Hierarchical tessellation enables programmable morphing matter. *Matter*, 2023.

[5] **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.

[6] 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.

[7] Peng Song, **Ziqi Wang**, and Marco Livesu. Computational assemblies: Analysis, design, and fabrication. *Eurographics Tutorial*, 2022.

[8] 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.

[9] **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.

[10] **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.

[11] Yang Xu, **Ziqi Wang**, Siyu Gong, and Yong Chen. Reusable support for additive manufacturing. *Additive Manufacturing*, 39:101840, 2021.

[12] **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.

[13] **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.

[14] **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.

[15] 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 **Switzerland**
Teaching Assistant, Zurich *Feb 2022 - present*
Linear Algebra (2022)
Architecture School Summer Project (MAS Dfab T3)

EPFL **Switzerland**
Teaching Assistant, Lausanne *Sep 2017 - Dec 2021*
Linear Algebra (2020)
Introduction to Computer Graphics (2019, 2020)
Digital 3D Geometry Processing (2018, 2019)
Geometric Computing (2021)

Academic experience

NCCR Digital Fabricaton **Switzerland**
Researcher, Lausanne & Zurich *2018 -*
Topic: Complex assemblies and digital timber

ETH Zurich **Switzerland**
Academic Visiting, Zurich *2021 Summer*
Host: Gramazio Kohler Research
Topic: Synchronized robotic assembly

The University of British Columbia **Canada**
Research Assistant, Vancouver *2016 Summer*
Host: Prof.Dr.Hsi-Yung Feng
Topic: CNC machining simulation

Professional service

Technical paper committee:

- ACM SIGGRPAH Asia 2025

Reviewer:

- ACM SIGGRPAH (Asia) 2022, 2023, 2024, 2025
- IEEE TVCG 2020, 2023
- ACM TOG 2021