

Yihui Ma

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EDUCATION

Ph.D in Computer Science, King Abdullah University of Science and Technology	Jan 2025 – Present
Advisor: Prof. Dominik L. Michels	
Master in Computer Science, ShanghaiTech University	Sep 2019 – Jun 2022
Advisor: Prof. Xiaopei Liu	
Bachelor in Aircraft Design and Engineering, Northwestern Polytechnical University	Sep 2015 – Jun 2019
Advisor: Prof. Shuhui Bu	

PUBLICATIONS

- [Hybrid LBM-FVM Solver for Two-Phase Flow Simulation](#)
Yihui Ma, Xiaoyu Xiao, Wei Li, Mathieu Desbrun, and Xiaopei Liu. ([Journal of Computational Physics, 2024](#))
- [Efficient Kinetic Simulation of Two-Phase Flows](#)
Wei Li, Yihui Ma, Xiaopei Liu, and Mathieu Desbrun. ([ACM Transactions on Graphics, SIGGRAPH, 2022](#))

RESEARCH EXPERIENCE

FLARE Lab, ShanghaiTech University,	July 2019–Jun 2022
• <i>Advisor:</i> Xiaopei Liu	
• Fluid Simulation in Computer Graphics and Computational Physics:	
1. Single-phase and multi-phase of fluid simulation.	
2. Fluid-structure interaction / fluid-solid coupling.	
3. Machine learning with fluid simulation.	

WORK EXPERIENCE

Timi Studio, Tencent	July 2022–Jan 2025
• <i>Position: Game Developer</i>	
1. Write codes of gameplay using Unreal Engine, Unity and Cocos Editor.	
2. Performance optimization of game engines.	
3. Research of cloth simulation of chaos library in Unreal Engine.	
4. Procedural Content Generation of terrain in game map using Houdini.	
Timi Studio, Tencent	July 2021-Oct 2021
• <i>Position: Game Developer Intern</i>	
1. Research on Procedural Content Generation.	

HONORS

Honored Graduate of Northwestern Polytechnical University	2019
3 rd Prize Innovation and Entrepreneurship of MIIT.	2017 – 2018
Outstanding Undergraduate Scholarship. (3 times)	2015 – 2016, 2016 – 2017, 2017 – 2018
Guangdong, Hong Kong and Macau Scholarships.	2016 – 2017
"Wu Yajun" 3 rd special scholarship.	2015 – 2016

COMPETITIONS

The 20th "Dawang Cup" National Robot Championship Obstacle Race Champion	2018
Honorable Mention in Mathematical Contest In Modeling/Interdisciplinary Contest In Modeling	2018
Two humanoid competitive robot championships in the 2017 China Robot and Artificial Intelligence Competition	2017
International third place/first prize in the 21st FIRA Robot World Cup	2016

English-Language Proficiency

IELTS Overall Band Score: 7.0

- Listening: 7.5 Reading: 8.5 Writing: 6.5 Speaking: 6.0