

Yixin Hu

CONTACT INFO

Name: Yixin Hu
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Homepage: <https://yixin-hu.github.io/>
Open-source Projects:
<https://github.com/Yixin-Hu>
<https://github.com/wildmeshing>

EDUCATION

New York University, USA 2016.09 - 2022.01
Ph.D., Computer Science.
Research direction: Computer Graphics, Geometry Processing.
GPA: 3.94/4.0

Zhejiang University, China 2012.09 - 2016.07
Bachelor of Engineering, Computer Science
GPA: 3.99/4.0 (90.42/100), Rank: 3/174

WORK EXPERIENCE

Pixel Lab, Tencent America, New York 2021.10 - Now
Senior Graphics Researcher

New York University, New York 2017.09 - 2021.09
Research Assistant

Future Reality Lab, Facebook Research, Redmond 2020.05 - 2020.08
Research Intern, working with Yujia Chen and Michael Goesele.

Creative Intelligence Lab, Adobe Research, San Francisco 2019.06 - 2019.08
Research Intern, working with Qingnan Zhou.

nTopology Inc., New York 2018.05 - 2018.07
Summer Intern

New York University, New York 2018.01 - 2018.05
Teaching Assistant, Computer Graphics CSCI-GA.2270-001

Creative Intelligence Lab, Adobe Research, San Francisco 2017.05 - 2017.08
Research Intern, working with Qingnan Zhou.

The University of Hong Kong, Hong Kong 2015.07 - 2015.09
Research Intern, working with Prof. Wenping Wang.

PUBLICATIONS

- Declarative Specification for Unstructured Mesh Editing Algorithms**
Zhongshi Jiang, Jiacheng Dai, **Yixin Hu**, Yunfan Zhou, Jeremie Dumas, Qingnan Zhou, Gurkirat Singh Bajwa, Denis Zorin, Daniele Panozzo, Teseo Schneider.
ACM Transaction on Graphics (SIGGRAPH Asia 2022).
- Bijjective and Coarse High-Order Tetrahedral Meshes**
Zhongshi Jiang, Ziyi Zhang, **Yixin Hu**, Teseo Schneider, Denis Zorin, Daniele Panozzo.
ACM Transactions on Graphics (SIGGRAPH 2021).
- Fast Tetrahedral Meshing in the Wild**
Yixin Hu, Teseo Schneider, Bolun Wang, Denis Zorin, Daniele Panozzo.
ACM Transactions on Graphics (SIGGRAPH 2020).

4. **Exact and Efficient Polyhedral Envelope Containment Check**
Bolun Wang, Teseo Schneider, **Yixin Hu**, Marco Attene, Daniele Panozzo.
ACM Transactions on Graphics (SIGGRAPH 2020).
5. **A Large Scale Comparison of Tetrahedral and Hexahedral Elements for Finite Element Analysis**
Teseo Schneider, **Yixin Hu**, Xifeng Gao, Jeremie Dumas, Denis Zorin, Daniele Panozzo.
ACM Transactions on Graphics (presented at SIGGRAPH 2022).
6. **TriWild: Robust Triangulation with Curve Constraints**
Yixin Hu, Teseo Schneider, Xifeng Gao, Qingnan Zhou, Alec Jacobson, Denis Zorin, Daniele Panozzo.
ACM Transactions on Graphics (SIGGRAPH 2019).
7. **Decoupling Simulation Accuracy from Mesh Quality**
Teseo Schneider, **Yixin Hu**, Jérémie Dumas, Xifeng Gao, Daniele Panozzo, Denis Zorin.
ACM Transactions on Graphics (SIGGRAPH Asia 2018).
8. **Tetrahedral Meshing in the Wild**
Yixin Hu, Qingnan Zhou, Xifeng Gao, Alec Jacobson, Denis Zorin, Daniele Panozzo.
ACM Transactions on Graphics (SIGGRAPH 2018).

AWARDS

PhD (2016 - 2022):

Janet Fabri Prize

Courant Institute of Mathematical Sciences, New York University, 2022

Sandra Bleistein Prize

Courant Institute of Mathematical Sciences, New York University, 2021

Adobe Research Fellowship

Adobe Systems Inc., 2019

Jacob T. Schwartz Ph.D. Fellowship

New York University, 2019

MacCracken Fellowship

New York University, 2016

Undergraduate (2012 - 2016):

Outstanding Graduates Honor

Zhejiang Province Department of Education, 2016

CCF Outstanding Student Award (100 winners per year)

China Computer Federation (CCF), 2016

Outstanding Graduates Honor

Zhejiang University, 2016

Research & Innovation First-Class Scholarship

Zhejiang University, 2015

Meritorious Winner

Mathematical Contest in Modeling (MCM), 2015

Excellent Student Honor

Zhejiang University, 2013 - 2015

The First-Class Scholarship (Top 3%)

Zhejiang University, 2013 - 2014

National Scholarship (Top 2%)

China Ministry of Education, 2013

**REVIEW
EXPERIENCE**

ACM Transactions on Graphics 2019, 2020

ACM SIGGRAPH 2022, 2023

ACM SIGGRAPH Asia 2020, 2022

IEEE Transactions on Visualization and Computer Graphics 2020, 2022

Eurographics 2020, 2021, 2022

Computer & Graphics 2018, 2019, 2021

Computer Aided Geometric Design 2021, 2022

**INVITED
TALKS**

BroadLeaf: Real-Time Cinematic Rendering of Large-Scale Forests 2023
Core Concepts Talk at GDC 2023

WildMeshing: Unstructured Mesh Generation and Repairing in the Wild 2022
Keynote talk IEEE at UEMCON 2022

WildMeshing: Triangulation and Tetrahedralization in the Wild 2021
Computer Graphics Group, Columbia University

Fast Tetrahedral Meshing in the Wild 2021
Workshop, Department of Engineering, University of Cambridge

Fast Tetrahedral Meshing in the Wild 2020
Toronto Geometry Colloquium, University of Toronto

WildMeshing: Triangulation and Tetrahedralization in the Wild 2019
Geometric Data Processing Group, MIT

TriWild: Robust Triangulation with Curve Constraints 2019
GAMES: Graphics And Mixed Environment Seminar, China Computer Federation

Tetrahedral Meshing in the Wild 2018
GAMES: Graphics And Mixed Environment Seminar, China Computer Federation

Tetrahedral Meshing in the Wild 2018
The Dynamic Graphics Project lab Graphics Seminar, University of Toronto