Yike Li

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Education

George Mason University, VA, United State 2023 – present

Ph.D. in Computer Science and Technology

Tsinghua University, Beijing, China 2020 – 2023

Master in Information and Art Design (cross-disciplinary), expected Jun 2023

- **Jointly Supervisor:** Songhai Zhang (Computer Science), Xiaobo Lu (Art and Design)
- **Coursework:** Digital Media Design, Interaction Design, Information Visualization, Multimedia Art, Digital Art and New Media

Wuhan University of Science and Technology, Hubei, China 2016 – 2020

B.S. in Computer Science and Technology

- **Coursework:** Computer Programming, Data Structures and Algorithms, Computer Organization and Architecture, Discrete Mathematics, Computer Networks
- **Professional Courses:**Human-Computer Interaction (A+), Fundamentals of Numerical Computation (A+), Digital Logic and Digital System (A), etc.

Publications

1. **Yike Li**, Chen Wang, Ge Yu, Yu He, Stefanie Zollmann, Songhai Zhang. Natural Hand Remapping: Velocity Adaptive Hand Manipulation for Virtual Reality. Submitted to *Computational Visual Media, 2023 (CVM)*. In press.
2. **Yike Li**, Hou Tam, Jia-Hong Liu, Shao-Kui Zhang, Song-Hai Zhang. A VR-Oriented Efficient 3D Scene Synthesis System. *IEEE International Conference on Virtual Reality and Visualization, 2022 (ICVRV)*.
3. Shao-Kui Zhang, Hou Tam, **Yike Li**, Ke-Xin Ren, Hongbo Fu, Song-Hai Zhang. SceneDirector: Interactive Scene Synthesis by Simultaneously Editing Object Groups in Real-Time. *IEEE Transaction on Visualization and Computer Graphics (TVCG)*.
4. Shao-kui Zhang, Jia-hong Liu, **Yike Li**, Tian-Yi Xiong, Ke-Xin Ren, Song-Hai Zhang. Automatic 3D Commercial Scene Generation. Submitted to *ACM MM 2023*. In press.
5. Xiaoxiong Fan, Yun Cai, Yufei Yang, Tianxing Xu, **Yike Li**, Songhai Zhang, and Fanglue Zhang. Detection of scene-irrelevant head movements via eye-head coordination information.*Virtual Reality & Intelligent Hardware, 3(6):501–514, 2021.*

Research Projects

Projects: Semantically Consistent Complex Scene Efficient Editing, Synthesis, and Organization Project Multi-source Data-driven Intelligent and Efficient Scene Modeling and Rendering Engine Dec. 2021 – Feb. 2022

C#, Virtual Reality, Unity National Key Projects, collaborated with Shaokui Zhang

Brief introduction: the object of this project is to build an open-source multi person collaborative 3D scene synthesis platform, including a web platform, VR platform, models data set, and automatic layout algorithm.

- Building the VR 3D scene synthesis platform which is corresponding with the web platform.
- Creating the interaction method between human and indoor models in Virtual Reality environment.

Competition: 3D Scene Construction and System for Efficient VR Scene Synthesis Jun. 2022 – Oct. 2022

Virtual Reality, 3D Scene Synthesis, Intelligent 3D Interaction The *5th* China Competition on Virtual Reality 2022, collaborated with Shaokui Zhang, Tam Hou, Jiahong Liu, Miao Xu

Brief introduction: this project includes automatic synthesize algorithm for commercial places in virtual environments, interactive scene synthesis tools, automation of indoor scene photography in VR scenes, etc.

- Taking overall responsibility for the project including proposing innovations, tasks assignments, reporting the results, etc.
- Setting indicators for the effectiveness of the synthetic scenes and verify the effectiveness of the synthetic scenes through the virtual reality platform.
- Completing the intelligent 3D interaction layout algorithm on the virtual reality platform.

Research and Development of Chinese Style Product Immersion Display System Based on Virtual Reality Technology Dec. 2021 – Apr. 2023

Virtual Reality, Human-Computer Interaction collaborated with Jiajia Tan, Di Wu, Jingjin Liu, Yingtian Shi

Brief introduction: this project aims to display new media artworks in Chinese style. Through VR technology, these works of art can be expressed and interacted with in innovative ways.

- Converting the graphic artwork into 3D models and rending them
- Realizing interaction in VR scenes according to the requirements of designers

Honors and Awards

1st Prize of *5th* China Competition on Virtual Reality (CCVR)	2022
2nd Scholarship, Tsinghua University	2021
2nd Scholarship, Wuhan University of Science and Technology	2017-2019
Excellent Student (top 5%), Wuhan University of Science and Technology	2016-2019

Research Interesting

- **Research Interesting** Game Design, Virtual Reality, Graphics, 3D Scene Synthesis, Human-Computer Interaction

Skills

- **English Level:** TOEFL (102/120)
- **Programming Languages:** C#, Python, Markdown, Git, LaTex, HTML, JS, etc.
- **Game Engine:** Unity 3D
- **VR Equipments:** HTC Vive, Oculus, etc.