### Hui Ye

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huiyehy@outlook.com https://huiye19.github.io

### RESEARCH FOCUS

My research interests lie in the intersection of **Human-Computer Interaction (HCI)** and **Computer Graphics (CG)**. Specifically, my main research focus is on exploring novel mobile AR prototyping and programming tools and techniques for 3D contents and interactions.

### **EDUCATION**

09/2017 - City University of Hong Kong (CityU)

08/2022 Ph.D. in Creative Media

Thesis: 3D Content and Interaction Prototyping with Mobile Augmented Reality

Supervisor: Prof. Hongbo Fu

Committee: Hongbo Fu, Kening Zhu, Weiyin Ma, Karan Singh

09/2012 - University of Science and Technology of China (USTC)

06/2016 B.A. in Communication (Honorary Rank, Top 5%)

Minor in Computer Science and Technology

#### **EXPERIENCE**

09/2022 - City University of Hong Kong

Current RGC Postdoctoral Fellow

Supervisor: Prof. Hongbo Fu

09/2021 - City University of Hong Kong

08/2012 Research Assistant

Supervisor: Prof. Hongbo Fu

12/2019 - Tsinghua University

04/2020 Institute of HCI and Media Integration

Visiting Ph.D. Student

Advisors: Dr. Chun Yu and Prof. Hongbo Fu

### **PULICATIONS**

- P1 **Hui Ye**, Jiaye Leng (joint first author), Pengfei Xu, Karan Singh, and Hongbo Fu. ProInterAR: A Visual Programming Platform for Creating Immersive AR Interactions. *In Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems*. ACM, 2024. **(CHI 2024)**
- P2 **Hui Ye**, Jiaye Leng, Chufeng Xiao, Lili Wang, and Hongbo Fu. ProObjAR: Prototyping Spatially-aware Interactions of Smart Objects with AR-HMD. *In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. ACM, 2023. **(CHI 2023)**
- P3 **Hui Ye** and Hongbo Fu. ProGesAR: Mobile AR Prototyping for Proxemic and Gestural Interactions with Real-world IoT Enhanced Spaces. *In Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems*. ACM, 2022. **(CHI 2022)**
- Hui Ye, Kin Chung Kwan (joint first author), Wanchao Su, and Hongbo Fu. ARAnimator: In-situ Character Animation in Mobile AR with User-defined Motion Gestures. *ACM Transactions on Graphics (TOG): Special Issue for ACM SIGGRAPH 2020*. ACM, 2020. (SIGGRAPH 2020)
- P5 **Hui Ye**, Kin Chung Kwan, and Hongbo Fu. 3D Curve Creation on and around Physical Objects with Mobile AR. *IEEE Transactions on Visualization and Computer Graphics*. IEEE, 2021. **(TVCG)**

- P6 Wanchao Su, **Hui Ye**, Shuyu Chen, Lin Gao, and Hongbo Fu. DrawingInStyles: Portrait Image Generation and Editing with Spatially Conditioned StyleGAN. *IEEE Transactions on Visualization and Computer Graphics*. IEEE, 2022. **(TVCG)**
- P7 Xuanyu Wang, **Hui Ye**, Christian Sandor, Weizhan Zhang, and Hongbo Fu. Predict-and-Drive: Avatar Motion Adaption in Room-Scale Augmented Reality Telepresence with Heterogeneous Spaces. *IEEE Transactions on Visualization and Computer Graphics: Special Issue for IEEE ISMAR 2022.* **IEEE**, 2022. **(TVCG)**
- P8 Yanxiang Zhang and **Hui Ye**. Time-Based Nonlinear Interactive Player. *In Augmented Reality, Virtual Reality, and Computer Graphics: Third International Conference, AVR* 2016. Springer, 2016.
- P9 Yanxiang Zhang, Yun Zhu, and **Hui Ye**. 2015. The Design of an Augmented Reality Based Rigid Body Motion Experiment System. *Applied Mechanics and Materials*. Trans Tech Publications Ltd, 2015.

### **PATENTS**

- PT1 Hongbo Fu, **Hui Ye**, and Chufeng Xiao. Prototyping Applications Of Spatially Aware Smart Objects Using Augmented Reality. U.S. Patent 18/335,559, 2023.
- PT2 Hongbo Fu and **Hui Ye**. Mobile AR Prototyping for Proxemic and Gestural Interactions with Real-world IoT Enhanced Spaces. U.S. Patent 17/810,714, 2022.

### SELECTED HONORS & AWARDS

| 2023    | Science and Technology Progress Award of Anhui (Third Prize)            |
|---------|---|
| 2022    | RGC Postdoctoral Fellowship   |
| 2022    | Outstanding Academic Performance Award of CityU                         |
| 2021    | Shidi CAD&CG Excellent Student Award                                    |
| 2020    | Research Tuition Scholarship of CityU                                   |
| 2016    | Guo Moruo Scholarship (Top 1.7%, Highest Honor for USTC Undergraduates) |
| 2016    | Merit Graduate of Anhui Province & USTC (Top 3%)                        |
| 2016    | Outstanding Thesis of USTC  |
| 2014    | Sun Bin Leadership Scholarship of USTC                                  |
| 2014    | Aegon-Industrial Responsibility Scholarship of USTC                     |
| 2013-15 | Outstanding Instructor in "Science and Technology Week" of USTC         |
| 2013    | Gold Award of Excellent Student Scholarship of USTC (Top 5%)            |
| 2013    | Outstanding Young Volunteer of USTC                                     |
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### **TALKS**

| 05/2023 | ProObjAR: Prototyping Spatially-aware Interactions of Smart Objects with AR-HMD Conference Paper Presenter, CHI 2023                            |
|---------|---|
| 08/2022 | From Communication to Computer Graphics Invited Presenter, Student Colloquium, CAD&CG 2022+2023   |
| 05/2022 | ProGesAR: Mobile AR Prototyping for Proxemic and Gestural Interactions with Real-world IoT Enhanced Spaces Conference Paper Presenter, CHI 2022 |
| 04/2022 | Mobile AR Prototyping for Proxemic and Gestural Interactions Invited Speaker, EAA Youth Academic Forum, Tianiin Fine Arts Institute             |

# 12/2021 Exploring Novel Mobile AR Prototyping Techniques and Tools for 3D Contents

SIGGRAPH Thesis Fast Forward 2021

# 2020-21 ARAnimator: In-situ Character Animation in Mobile AR with User-defined Motion Gestures

Invited Speaker, Graphics And Mixed Environment Symposium (GAMES), 09/2021 Invited Speaker, SCM|ACIM Colloquium, CityU, 10/2020 Conference Paper Presenter, SIGGRAPH 2020, 08/2020

- 03/2021 **3D Curve Creation on and around Physical Objects with Mobile AR** Invited Speaker, IEEE VR 2021
- 03/2021 **In-situ 3D Content Creation in Mobile AR**Invited Speaker, Affiliated Forum on Human, Technology and Future of IWHEC 2021

### TEACHING EXPERIENCE

- 2018-19 Teaching Assistant, SM1103A Introduction to Media Computing, CityU
  - 2018 Teaching Assistant, SM2716 Physical Computing & Tangible Media, CityU

### PROFESSIONAL SERVICE

### **Program Committees**

- 2023-24 ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW)
  - 2024 ACM Special Interest Group on Computer Graphics (SIGGRAPH Asia) Emerging Technologies
  - 2024 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp/ISWC) Notes and Briefs
- 2023-24 ACM Conference on Human Factors in Computing Systems (CHI) Late-Breaking Work
  - 2022 ACM Conference on Human Factors in Computing Systems (CHI) Student Research Competition

### **Conference Review**

- 2024 ACM Special Interest Group on Computer Graphics (SIGGRAPH)
- 2022-23 ACM Special Interest Group on Computer Graphics (SIGGRAPH Asia)
- 2020-24 ACM Conference on Human Factors in Computing Systems (CHI): Special Recognitions for Outstanding Reviews
- 2023-24 ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW): Special Recognitions for Outstanding Reviews
- 2020/23 Pacific Conference on Computer Graphics and Applications (PG)
  - 2022 ACM Symposium on User Interface Software and Technology (UIST)
  - ACM International Conference on Mobile Human-Computer Interaction (MobileHCI): Special Recognitions for Outstanding Reviews
  - 2021 IEEE Virtual Reality (VR)
  - 2021 IEEE International Conference on Artificial Intelligence and Virtual Reality (AIVR)

### **Journal Review**

- 2024 ACM Transactions on Graphics (TOG)
- 2024 IEEE Transactions on Mobile Computing (TMC)
- 2023 Computers & Graphics (C&G)
- 2023 IEEE Computer Graphics and Applications (CG&A)
- 2023 The Visual Computer (TVC)
- 2022 IEEE Transactions on Visualization and Computer Graphics (TVCG)

### **Student Helper**

2018 Pacific Conference on Computer Graphics and Applications (PG)

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