

XUANYU WANG

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I am a dual-degree Ph.D. student at City University of Hong Kong (CityU) and Xi'an Jiaotong University (XJTU). 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 interactive techniques to improve the sense of co-presence in Augmented Reality (AR) and Virtual Reality (VR) Telepresence / Teleconferencing.

🎓 EDUCATION

City University of Hong Kong Ph.D. in Creative Media Supervisor: Prof. Hongbo Fu External Co-Supervisor: Prof. Christian Sandor	2020 - 2024 (Expected)
Xi'an Jiaotong University Ph.D. in Computer Science and Technology Supervisor: Prof. Weizhan Zhang	2018 - 2024 (Expected)
Xi'an Jiaotong University B.Eng. in Computer Science and Technology	2014 - 2018

🏢 WORK EXPERIENCE

Research Assistant , City University of Hong Kong, Hong Kong SAR School of Creative Media Supervisor: Prof. Hongbo Fu	2023.5 - Present
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📖 PUBLICATIONS

Journal & Conference

- **Xuanyu Wang**, Weizhan Zhang, and Hongbo Fu. 2024. **A3RT: Attention-Aware AR Teleconferencing with Life-Size 2.5D Video Avatars**. *IEEE Conference on Virtual Reality and 3D User Interfaces (VR) 2024*, pp. 211-221.
- **Xuanyu Wang**, Weizhan Zhang, Christian Sandor, and Hongbo Fu. 2024. **Real-and-Present: Investigating the Use of Life-Size 2D Video Avatars in HMD-Based AR Teleconferencing**. *arXiv:2401.02171*. *IEEE TVCG Under Review*.
- **Xuanyu Wang**, Hui Ye, Christian Sandor, Weizhan Zhang, and Hongbo Fu. 2022. **Predict-and-Drive: Avatar Motion Adaption in Room-Scale Augmented Reality Telepresence with Heterogeneous Spaces**. *IEEE Transactions on Visualization and Computer Graphics (TVCG) (Special Issue of IEEE ISMAR 2022)*, 28(11), pp. 3705-3714.
- **Xuanyu Wang**, Haipeng Du, Weizhan Zhang, and Qinghua Zheng. 2020. **Deploying Fused Sharable Video Interaction Channels in Mobile Cloud**. *IEEE Global Communications Conference (GLOBECOM) 2020*, pp. 1-6.
- **Xuanyu Wang**, Weizhan Zhang, Xiang Gao, Jingyi Wang, Haipeng Du, and Qinghua Zheng. 2019. **Toward Cost-Effective Mobile Video Streaming through Environment-Aware Watching State Prediction**. *Sensors*, 19(17), pp. 1-14.
- Yingchun Wang, Jingyi Wang, Weizhan Zhang, Yufeng Zhan, Song Guo, Qinghua Zheng, **Xuanyu Wang**. 2022. **A Survey on Deploying Mobile Deep Learning Applications: A Systemic and Technical Perspective**. *Digital Communications and Networks*, 8(1), pp. 1-17.

- Haipeng Du, Weizhan Zhang, **Xuanyu Wang**, Shouqin Huang, and Qinghua Zheng. 2020. **Building Scenarios on Mobile Network Testbed with a Transmission Characteristics Similarity Model**. *IEEE International Conference on High Performance Computing and Communications (HPCC) 2020*, pp. 786-793.
- Haipeng Du, Weizhan Zhang, **Xuanyu Wang**, and Qinghua Zheng. 2018. **Integrated Bandwidth Variation Pattern Differentiation for HTTP Adaptive Streaming over 4G Cellular Networks**. *IEEE International Performance Computing and Communications Conference (IPCCC) 2018*, pp. 1-9.

Demo & Poster

- **Xuanyu Wang**, Yang Wang, Yan Shi, Weizhan Zhang, and Qinghua Zheng. 2020. **AvatarMeeting: An Augmented Reality Remote Interaction System with Personalized Avatars**. *ACM International Conference on Multimedia (MM) 2020 (Demo Track)*, pp. 4533-4535.

© PATENTS

- W. Zhang, **X. Wang**, Q. Zheng, Z. He, S. Li, Y. Wang, S. Huang, J. Liu, J. Luan, J. Wang, L. Feng, Z. Wang, H. Du, M. Zhao, G. Li, X. Gao, X. Wang, X. Zhou. **A Method for Deploying Fused Live Broadcast Video Channels in Mobile Cloud Computing Environments**. Patent No. ZL 201910289982.3. Publication date: 2021.01.15.
- W. Zhang, J. Liu, Q. Zheng, Y. Zhang, H. He, **X. Wang**, S. Huang, H. Du, M. Zhao, G. Li, X. Gao, X. Wang. **A QoE-Driven HAS Live Channel Scheduling Method in Cloud Computing Environments**. Patent No. ZL 201811143030.2. Publication date: 2020.10.27.
- H. Du, B. Qi, W. Zhang, S. Huang, **X. Wang**, Y. Wang, S. Li, Z. He, J. Liu, L. Feng, J. Luan, J. Wang, Q. Zheng, M. Zhao, G. Li, X. Gao, X. Wang, X. Zhou. **A Method for Pushing HAS Video Slices Based on HTTP/2**. Patent No. ZL 201910290834.3. Publication date: 2020.06.02.
- Z. Wang, H. He, Q. Zheng, Y. Wang, S. Li, Z. He, S. Huang, **X. Wang**, J. Wang, L. Feng, J. Luan, J. Liu, W. Zhang, M. Zhao, G. Li, X. Gao, X. Wang, X. Zhou. **A Content-Aware Video Adaptive Transmission Method Based on Deep Neural Network**. Patent No. ZL 201910290831.X. Publication date: 2020.04.10.

📁 PROJECT EXPERIENCE

- **Development of Attention-Aware, Immersive, Collaborative Video Teleconferencing System with 360 Video and Mixed Reality** 2024.1 - 2025.6
Core Team Member
 Hong Kong SAR Innovation and Technology Fund (ITF) | Project No. ITS/106/22
 In collaboration with Hangzhou QunHe Information Technology Co., Ltd. and Shenzhen Kandao Technology Co., Ltd.
- **Research on Mixed Reality Remote Interaction Prototype Technology Based on XR** 2021.2 - 2022.2
Core Team Member
 XJTU-Migu 5G Future Media and Artificial Intelligence Joint Innovation Laboratory | Project No. 20210220-ZKT01
 In collaboration with MIGU Video Co., Ltd.
- **Research on Real-Time Prediction of Mobile Terminal Bandwidth for Time-Varying Networks** 2021.2 - 2022.2
Team Member
 XJTU-Migu 5G Future Media and Artificial Intelligence Joint Innovation Laboratory | Project No. 20210220-ZKT02
 In collaboration with MIGU Video Co., Ltd.
- **Research on Model Acceleration and Lightweighting for Multi-Task Application Scenarios** 2022.1 - 2024.12
Team Member
 In collaboration with China Telecom Co., Ltd.

- **Research on Adaptive Video Transmission for Low-Latency Video Analysis in Edge Intelligence Environment** 2022.1 - 2025.12
Team Member
National Natural Science Foundation of China (NSFC) | Project No. 62172326

HONORS & AWARDS

- Outstanding Graduate Student Award, XJTU 2022-2023
- Special Graduate Academic Scholarship, XJTU 2022-2023
- Outstanding Presentation Award at the 15th PhD Student Workshop 2022, CityU 2022
- Outstanding Graduate Student Award, XJTU 2021-2022
- Special Graduate Academic Scholarship, XJTU 2021-2022
- Special Freshman Graduate Academic Scholarship, XJTU 2020-2021
- National Scholarship 2018-2019

PROFESSIONAL TALKS

- **A3RT: Attention-Aware AR Teleconferencing with Life-Size 2.5D Video Avatars**
Conference Paper Presenter, IEEE VR 2024 2024.3
- **Predict-and-Drive: Avatar Motion Adaption in Room-Scale Augmented Reality Telepresence with Heterogeneous Spaces**
15th PhD Student Workshop 2022, CityU (Outstanding Presentation Award) 2022.11
TVCG Track Paper Presenter, IEEE ISMAR 2022 2022.10
- **Avatarmeeting: An augmented reality remote interaction system with personalized avatars**
Demo Track Paper Presenter, ACM Multimedia 2020 2020.10
- **Deploying Fused Sharable Video Interaction Channels in Mobile Cloud**
Conference Paper Presenter, IEEE Globecom 2020 2020.12
- **Building Scenarios on Mobile Network Testbed with a Transmission Characteristics Similarity Model**
Conference Paper Presenter, IEEE HPCC 2020 2020.12

ACADEMIC SERVICE

Paper Review IEEE TVCG, CHI 2023, ISMAR 2023, CSCW 2023, Eurographics 2023, ACM Designing Interactive Systems 2024, Computers & Graphics 2021, Multimedia Tools and Applications 2020 & 2021.

LANGUAGE

Chinese (Native), English (Fluent, IELTS 7.5)