WENGE XU CURRICULUM VITAE

Contact wenge.xu@bcu.ac.uk / xu_wenge on Twitter / wenge – xu on LinkedIn

Education

PhD in Computer Science at University of Liverpool 2021
Thesis: Motion-based Interaction for Head-Mounted Displays
Supervisor: Prof Hai-Ning Liang, Prof Yong Yue, Dr Bing Wu Berberich
Examiners: Prof Shengdong Zhao, Dr Lingyun Yu

MSc Advanced Computing with Management at King's College London 2017

BSc Computer Science (Games Technology) at Nottingham Trent University 2016

Experience

Lecturer in HCI 05.2021—Present
Deputy course lead for MSc User Experience Design 01.2023—Present
Birmingham City University, UK

Doctoral Research Assistant 01.2018—05.2021
Xi'an Jiaotong-Liverpool University, CN

Graduate Teaching Assistant 01.2018—12.2020
Xi'an Jiaotong-Liverpool University, CN

Teaching Experience

Lecturer 2021—Present
Module:

- CMP7220 Advanced and Immersive Technologies (~70 Y4 students; two rounds) 2023
- CMP5323 Human-Computer Interaction (~60 Y2 Students) 2023
- CMP7215 Human-Centred Design (~70 Y4 Students) 2023
- DIG4166 Web Design and Development (~330 Y1 students) 2022
- CMP7220 Advanced and Immersive Technologies (~60 Y4 students; two rounds) 2022
- CMP6214 User Experience Design (~100 Y3 students) 2021
- DIG4166 Web Design and Development (~200 Y1 students) 2021

Graduate Teaching Assistant, XJTLU 2018—21
Course:

- Human-Centric Computing (100+ Y2 students) 2018, 2020
- Data Structures (200+ Y1 students) 2018
- Principles of Computer Programming (~800 Y0 students) 2018—19
- Principles of Computer Games Design (80+ Y3 students) 2019—21
- Professional Skills and Emerging Topics in Computer Science (~200 Y0 students) 2019
- Professional Skills in Computer Science (~200 Y0 students) 2019
- Explore Advanced Technology (~800 Y0 students) 2020

Management and Supervision

I currently supervise 6-8 MSc students and 2-4 final year undergraduate students per year. I also mentor a group of MSc UXD students. Prior students' work has been published at conferences, journals, and have won university and international conference level student research competitions.

Professional Services

Conference Chair	ICDIIME'22 &'23 (Technical Program Chair)
	IEEE AIVR'22 (Virtual Setup Chair)
Program Committee	TEI WIP'21, IMX'22, CHI Play'22-23, iLRN'22, IMET'22
Conference Reviewer	CHI'21-22, IEEE ISMAR'21-22, IEEE VR'21-22, MobileHCI'21
	VRST'19-21, SUI'21, CHI Play'20, TEI'20-21, AH'22
Journal Reviewer	Springer Virtual Reality
	JMIR Serious Games
	International Journal of Human-Computer Studies
	International Journal of Human-Computer Interaction
	IEEE Transactions on Games
Journal Editor	Frontiers in Virtual Reality, IEEE Transactions on Games
Grant Reviewer	EPSRC UKRI

Awards

- High-Impact Articles (Games for Health Journal) 06.2022
- High-Impact Articles (Games for Health Journal) 03.2022
- ACM CHI Play Student Game Design Competition Finalist 11.2020
- Outstanding Teaching Team Award (UG programme) in Suzhou 06.2020
- IEEE VR Best Conference Paper Nominee 03.2020
- Best PhD Poster Award, XJTLU 12.2019
- Best PhD Presentation Award, XJTLU 12.2019
- Excellent Volunteer Service, IEEE ISMAR'19 10.2019
- Ph.D. Scholarship, RDF 15-02-12, XJTLU 2018—20

Grant

- Gaming Interface for Aging Population. KSF-A-035 (CNY 1M) 2018—20

Publications

I have published peer-reviewed full papers in top-tier conferences like ACM CHI, IEEE VR, IEEE ISMAR and top-ranked journals such as IEEE TVCG, IJHCI, Games for Health. You can find a full list of my papers in Google scholar or Researchgate

Conference

[12] X. Liu, X. Meng, B. Spittle, **W. Xu**, B.Y. Gao, H.N. Liang. Exploring Text Selection in Augmented Reality Systems. *ACM VRCAI'22*

[11] **W. Xu**, X. Meng, K. Yu, S. Sarcar, H.N. Liang. Evaluation Text Selection in Virtual Reality Head-Mounted Displays. *IEEE ISMAR'22*.

[10] X. Meng, **W. Xu**, H.N. Liang. An Exploration of Hands-free Text Selection for Virtual Reality Head-Mounted Displays. *IEEE ISMAR'22*.

[9] D. Monteiro, H.N. Liang, X. Wang, **W. Xu**, H. Tu. Design and Development of a Low-cost Device for Weight and Center of Gravity Simulation in Virtual Reality. *ACM ICMI'21*.

[8] **W. Xu**, H.N. Liang, K. Yu, N. Baghaei. Effect of Gameplay Uncertainty, Display Type, and Age on Virtual Reality Exergames. *ACM CHI'21*.

[7] X. Lu, D. Yu, H.N. Liang, **W. Xu**, Y. Chen, X. Li, K. Hasan. Exploration of Hands-free Text Entry Techniques for Virtual Reality. *IEEE ISMAR'20*.

[6]  **W. Xu**, H.N. Liang, Y. Chen, X. Li, and K. Yu. Exploring Visual Techniques for Boundary Awareness During Interaction in Augmented Reality Head-Mounted Displays. *IEEE VR'20. Nominated for the best conference paper award (top5%)*.

[5] D. Yu, H.N. Liang, X. Lu, T. Zhang, and **W. Xu**. DepthMove: Leveraging Head Motions in the Depth Dimension to Interact with Virtual Reality Head-Worn Displays. *IEEE ISMAR'19*.

[4] **W. Xu**, H.N. Liang, A. He, and Z. Wang. Pointing and Selection Methods for Text Entry in Augmented Reality Head-Mounted Displays. *IEEE ISMAR'19*.

[3] **W. Xu**, H.N. Liang, Y. Yu, D. Monteiro, K. Hasan, and C. Fleming. Assessing the Effects of a Full-body Motion-based Exergame in Virtual Reality. *Chinese CHI'19*.

[2] **W. Xu**, H.N. Liang, Y. Zhao, D. Yu, and D. Monteiro. DMove: Directional Motion-based Interaction for Augmented Reality Head-Mounted Displays. *ACM CHI'19*.

[1] **W. Xu**, H.N. Liang, Y. Yue. Directional Motion-based Interfaces for Virtual and Augmented Reality Head-mounted Displays. *ICOMSSC'18*.

Journal

[11] **W. Xu**, H.N. Liang, K. Yu, S. Wen, N. Baghaei, H. Tu. Acceptance of Virtual Reality Exergames Among Chinese Older Adults. *International Journal of Human–Computer Interaction*.

[10] J. Wang, H.N. Liang, D. Monteiro, **W. Xu**, J. Xiao. Real-time Prediction of Simulator Sickness in Virtual Reality Games. *IEEE Transactions on Games*.

[9] **W. Xu**, H.N. Liang, N. Baghaei, X. Ma, K. Yu, X. Meng, S. Wen. Effects of an Immersive Virtual Reality Exergame on University Students' Anxiety, Depression, and Perceived Stress: Pilot Feasibility and Usability Study. *JMIR Serious Games*.

[8] R. Shi, H.N. Liang, Y. Wu, D. Yu, and **W. Xu**. Virtual Reality Sickness Mitigation Methods: A Comparative Study in a Racing Game. *Proceedings of the ACM on Computer Graphics and Interactive Techniques*.

[7] **W. Xu**, H.N. Liang, Q. He, X. Li, K. Yu, Y. Chen. Results and Guidelines From a Repeated-Measures Design Experiment Comparing Standing and Seated Full-Body Gesture-Based Immersive Virtual Reality Exergames: Within-Subjects Evaluation. *JMIR Serious Games*.

[6] **W. Xu**, H.N. Liang, N. Baghaei, W.B. Bing, and Y. Yue. Health Benefits of Digital Videogames for the Ageing Population: A Systematic Review. *Games for Health*.

[5] **W. Xu**, H.N. Liang, Z. Zhang, and N. Baghaei. Studying the Effect of Display Type and Viewing Perspective on User Experience in Virtual Reality Exergames. *Games for Health*.

[4] **W. Xu**, H.N. Liang, Y. Zhao, T. Zhang, D. Yu, D. Monteiro, and Y. Yue. RingText: Dwell-free and hands-free Text Entry for Mobile Head-Mounted Displays using Head Motions. *IEEE Transactions on Visualization and Computer Graphics*.

[3] D. Yu, K. Fan, H. Zhang, D. Monteiro, **W. Xu**, and H.N. Liang. PizzaText: Text entry for virtual reality systems using dual thumbsticks. *IEEE Transactions on Visualization and Computer Graphics*.

[2] D. Yu, J. Zhu, **W. Xu**, H.N. Liang, C. Fleming, and Y. Yue. An Investigation of Micro-and Macro-Interaction for 3D Manipulation using Dual-Hand Controller in Virtual Reality Environments. *International Journal of Design, Analysis & Tools for Integrated Circuits & Systems*.

[1] D. Monteiro, H.N. Liang, **W. Xu**, M. Brucker, V. Nanjappan, and Y. Yue. Evaluating Immersion, Presence, and Emulator Sickness in Virtual Reality Games based on First- and Third-Person Viewing Perspectives. *Computer Animation & Virtual Worlds*.

Book Chapter

[1] R. Zheng, H.N. Liang, R. Xie, F. Lu, Y. Shi, **W. Xu**, and K. Papangelis. BlockTower: A Multi-player Cross-Platform Competitive Social Game. *In VR, Simulations and Serious Games for Education*.

Poster and Extended Abstract

[5] B. Spittle, **W. Xu**, M. Frutos-Pascual, C. Creed, I. Williams. Socially Distanced: Have user evaluation methods for Immersive Technologies changed during the COVID-19 pandemic? *IEEE ISMAR'21*.

[4] N. Baghaei, L. Stemmet, I. Khaliq, A. Ahmadi, I. Halim, H.N. Liang, **W. Xu**, M. Billinghurst, R. Porter. Designing Individualised Virtual Reality Applications for Supporting Depression: A Feasibility Study. *ACM EICS'21*.

[3] **W. Xu**, H.N. Liang, X. Ma, and X. Li. VirusBoxing: A HIIT-based VR boxing game. *ACM CHI PLAY'20*.

[2] J. Wang, H.N. Liang, D. Monteiro, **W. Xu**, H. Chen, Q. Chen. Real-Time Detection of Simulator Sickness in Virtual Reality Games Based on Players' Psychophysiological Data during Gameplay. *IEEE ISMAR'20*.

[1] X. Lu, D. Yu, H.N. Liang, X. Feng, and **W. Xu**. DepthText: Leveraging Head Movements towards the Depth Dimension for Hands-free Text Entry in Mobile Virtual Reality Systems. *IEEE VR'19*.

Patent

[3] H.N. Liang, D. Monteiro, **W. Xu**, X. Wang. A portable device for simulating weight and center of gravity in a virtual reality environment. CN patent App. CN202010885890.4 (Pending).

[2] H.N. Liang, J. Wang, D. Monteiro, **W. Xu**. A real time detection method for simulator sickness in virtual environment. CN patent App. CN202010754321.6 (Pending).

[1] H.N. Liang, **W. Xu**, Y. Yue. Dwell-Free Text Entry Technique for Mobile Virtual Reality Head-Mounted Displays. CN Patent App. CN108845754B (Approved).

Presentations

[10] Design of VR Exergames for Mental and Physical Health. *IEEE ISMAR'22*.

[9] Evaluation Text Selection in Virtual Reality Head-Mounted Displays. *IEEE ISMAR'22*.

[8] An Exploration of Hands-free Text Selection for Virtual Reality Head-Mounted Displays. *IEEE ISMAR'22*.

[7] DMT Lab Interface: Postgraduate Study an Introduction. *BCU*.

[6] Effect of Gameplay Uncertainty, Display Type, and Age on Virtual Reality Exergames. *ACM CHI'21*.

[5] DMove: Directional Motion-based Interaction for Augmented Reality Head-Mounted Displays. *XJTLU Oral Presentation Competition.*

[4] Pointing and Selection Methods for Text Entry in Augmented Reality Head-Mounted Displays. *IEEE ISMAR'19.*

[3] Assessing the Effects of a Full-body Motion-based Exergame in Virtual Reality. *Chinese CHI 2019*.

[2] DMove: Directional Motion-based Interaction for Augmented Reality Head-Mounted Displays. *ACM CHI'19.*

[1] RingText: Dwell-free and hands-free Text Entry for Mobile Head-Mounted Displays using Head Motions. *IEEE VR'19.*

Press

[6]	Study assesses the efficacy of hands-free text selection systems for VR headsets	Tech Xplore, 2022
[5]	Facial expressions could be used to interact in virtual reality	Science News Explores, 2022
[4]	What's it like to do a PhD at XJTLU?	XJTLU, 2021
[3]	读博，不是为赢得博士这个"头衔"	XJTLU, 2021
[2]	IEEE VR 中国学者宣讲论文精选	VR China, 2020
[1]	Virtual Reality Research Projects Accepted by International Symposium	XJTLU, 2018

References

Hai-Ning Liang, PhD
Professor

Diego Vilela Monteiro, PhD
Associate Professor

Xi'an Jiaotong-Liverpool University
Suzhou, China
Email: HaiNing.Liang@xjtlu.edu.cn

ESIEA University
Paris, France
Email: Diego.vilelamonteiro@esiea.fr

Nilufar Baghaei, PhD
Senior Lecturer
University of Queensland
Queensland, Australia
Email: n.baghaei@uq.edu.au