

Kangyou Yu

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Research Interest

Human-Computer Interaction (HCI), AR/VR/MR, Adaptive User Interfaces, Multimodal Interaction, Input Techniques, Body Interaction, Exergame...

Education

- 2026.04-present **University of Melbourne**, Melbourne, Australia
Ph.D. in Engineering and IT
Advisor: [Adélaïde Genay](#) and [Jorge Goncalves](#)
- 2022.09-2024.12 **University of California, Santa Barbara (UCSB)**, Santa Barbara, USA
Ph.D. in Computer Science (transferred)
M.S. in Computer Science
Advisor: [Tobias Höllerer](#)
- 2018.09-2022.07 **Xi'an Jiaotong-Liverpool University (XJTLU)**, Suzhou, China
University of Liverpool (UoL), Liverpool, United Kingdom
B.Sc. in Information and Computing Science (**With Honors**)
Advisor: [Hai-Ning Liang](#)

Full Publications

CONFERENCE PAPERS

- [C.8] **Kangyou Yu**, Yunhao Luo, Radha Kumaran, Shane Dirksen, Misha Sra, Tobias Höllerer. "*The Cost of Virtuality Switching: Searching for Physical and Virtual Targets in Optical-See-Through Augmented Reality*" **IEEE ISMAR 2025**
- [C.7] Chengyuan Xu, Radha Kumaran, Noah Stier, **Kangyou Yu**, Tobias Höllerer. "*Multimodal 3D Fusion and In-Situ Learning for Spatially Aware AI*" **IEEE ISMAR 2024**
- [C.6] Xuetong Wang, Ziyang Wang, Mingmin Zhang, **Kangyou Yu**, Pan Hui, Mingming Fan. "*Avatar Appearance and Behavior of Potential Harassers Affect Users' Perceptions and Response Strategies in Social Virtual Reality (VR): A Mixed-Methods Study*" **CSCW 2024**

- [C.5] Abby Wysopal, Vivian Ross, Joyce Passananti, **Kangyou Yu**, Brandon Huynh, Tobias Höllerer. "Level-of-Detail AR: Dynamically Adjusting Augmented Reality Level of Detail Based on Visual Angle." **IEEE VR 2023**
- [C.4] Anil Ufuk Batmaz, **Kangyou Yu**, Hai-Ning Liang, Wolfgang Stuerzlinger. "Improving Effective Throughput Performance using Auditory Feedback in Virtual Reality." **ACM SUI 2022**
- [C.3] Wenge Xu, Xuanru Meng, **Kangyou Yu**, Hai-Ning Liang, Sayan Sarcar. "Evaluation of Text Selection Techniques in Virtual Reality Head-Mounted Displays." **IEEE ISMAR 2022**
- [C.2] Wenge Xu, Hai-Ning Liang, **Kangyou Yu**, Nilufar Baghaei. "Effect of Gameplay Uncertainty, Display Type, and Age on Virtual Reality Exergames." **ACM CHI 2021**
- [C.1] Wenge Xu, Hai-Ning Liang, Yuzheng Chen, Xiang Li, **Kangyou Yu**. "Exploring Visual Techniques for Boundary Awareness During Interaction in Augmented Reality Head-Mounted Displays." **IEEE VR 2020, Best Paper Nomination (5%)**

JOURNAL ARTICLES

- [J.6] Tom Bullock, Emily Machniak, Joyce Passananti, **Kangyou Yu**, Radha Kumaran, You-Jin Kim, Jordan Garrett, Madhav Viswesvaran, Julia Ram, Tobias Höllerer, Barry Giesbrecht. "Electrophysiological evidence for differential semantic processing of words and objects presented in augmented reality." **Computers in Human Behavior Reports**
- [J.5] Wenge Xu, **Kangyou Yu**, Xuanru Meng, Diego Vilela Monteiro, Dominic Kao, Hai-Ning Liang. "Exploring the effect of the Group Size and Feedback of non-player character spectators in virtual reality exergames." **Frontiers in Psychology (Human-Media Interaction section)**
- [J.4] **Kangyou Yu**, Shaoyue Wen, Wenge Xu, Maurizio Caon, Nilufar Baghaei, Hai-Ning Liang. "Cheer for Me: Effect of Non-Player Character Audience Feedback on Older Adult Users of Virtual Reality Exergames." **Springer Virtual Reality (VIRE) 2023**
- [J.3] Wenge Xu, Hai-Ning Liang, **Kangyou Yu**, Shaoyue Wen, Nilufar Baghaeil, Huawei Tu. "Acceptance of Virtual Reality Exergame Among Chinese Older Adults." **International Journal of Human-Computer Interaction 2021**
- [J.2] Wenge Xu, Hai-Ning Liang, Nilufar Baghaei, Xiaoyue Ma, **Kangyou Yu** Xuanru Meng, Shaoyue Wen. "Effects of an Immersive Virtual Reality Exergame on University Students' Anxiety, Depression, and Perceived Stress: Pilot Feasibility and Usability Study." **JMIR Serious Game 2021**
- [J.1] Wenge Xu, Hai-Ning Liang, Qiuyu He, Xiang Li, **Kangyou Yu**, Yuzheng 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 Game 2020**

Research Experience

- 04/2026- present **The University of Melbourne (UniMelb), Melbourne, AU**
Graduate Researcher
HCI Group, Advisor: [Adelaide Genay](#) and [Jorge Goncalves](#)
Working on the topic of HCI and XR.
- 10/2022- 10/2025 **UC-Santa Barbara (UCSB), Santa Barbara, CA**
Graduate Research Assistant
FourEyesLab, Advisor: [Tobias Höllerer](#)
Worked on the topic of HCI and mobile MR, focus on the input modalities and input techniques in mobile Mixed Reality.
- Worked on a research that is combining the AR and EEG staffs to investigate if we can detect significant N400 human brain signal in classifying word-word pairs and word-object pairs while wearing AR glasses. [J.6]
 - Leading a research that investigates the difference between the selection of physical objects and virtual objects in mixed reality. [C.8]
 - Worked on spatially aware AI for the mixed reality. [C.7]
 - Worked on designing dynamically adjusting augmented reality level of details in mixed reality. [C.5]
- 06/2022- 10/2022 **The Hong Kong University of Science and Technology (Guangzhou), Guangzhou, China**
Undergraduate Research Intern
APEX Lab, Advisor: [Mingming Fan](#)
Worked on a project which examines the moderating effect of avatar appearance on user perception of sexual harassment and uncovering the underlying reasons behind response strategies. ([C.6])
- 04/2021- 10/2022 **Simon Fraser University (SFU), Vancouver, Canada**
Undergraduate Research Intern
VVISE Lab, Advisor: [Wolfgang Stuerzlinger](#) and [Anil Ufuk Batmaz](#)
- Worked as an undergraduate research intern
 - Co-designed the experiment and collected data by conducting two user studies and analyzed the data
 - The project published at ACM SUI 2022 [C.4]
- 04/2019- 07/2022 **Xi'an Jiaotong-Liverpool University (XJTLU), Suzhou, China**
Undergraduate Research Assistant
X-CHI Lab, Advisor: [Hai-Ning Liang](#) and [Wenge Xu](#)
- Worked as an undergraduate research assistant

- Worked on evaluating the text selection techniques in VR. [C.3]
- Worked on investigating the effect of different factors on different ages groups of users in VR exergames. [J.1][J.2][J.3][J.4][J.5][C.2]
- Worked on exploring visual techniques for boundary awareness in AR HMDs. [C.1]

Awards and Honors

2026 Melbourne Research Scholarship (AU\$39,500 per year)
 2023 SIGCHI Gray Marsden Travel Award (\$2000)
 2022 Academic Excellence Fellowship from UCSB (\$2000)
 2021 ACM UIST 2021 Registration Scholarship
 2020 Research Assistant Fellowship at XJTLU (\$1,400)
 2020 IEEE VR & 3DUI 2020 Best Conference Paper Nominee (5%)
 2019 Summer Undergraduate Research Fellowship (SURF) at XJTLU

Teaching Experience

04/2024-06/2024 **Teaching Assistant @ UCSB-CMPSC 16 Problem Solving I**
 04/2023-06/2023 **Teaching Assistant @ UCSB-CMPSC 9 Intermediate Python**

Professional Services

Reviewer: ACM CHI Play 2026, ACM UIST 2026, ACM CHI 2026, ACM CHI 2025, IEEE ISMAR 2025, ACM CHI 2024, ACM CHI Play 2024, ACM VRST 2024, ACM CHI 2023, IJHCI 2023

Student Volunteer: IEEE ISMAR 2024, IEEE ISMAR 2023, ACM CHI 2023, IEEE VR 2023, ACM SUI 2022, IEEE ISMAR 2021, ACM IUI 2021, IEEE AIVR 2020