# 👤 Personal Information

**Xinan Yan**

**Student**    Xi'an Jiaotong-Liverpool University

Experienced in reviewing, repairing, and improving code to maximize product performance and usability. 6 years of software development and management experience. Capable of managing multiple priorities with a positive attitude and striving to achieve team goals.

# 🎓 Education

**Xi'an Jiaotong-Liverpool University**, **School of Advanced Technology**

BEng Mechatronics and Robotic System      Sep 2022 – Expected July 2026

# 💻 Publications

## Exploring the Effects of Spatial Constraints and Curvature for 3D Piloting in Virtual Environments

**Co-first Author**                                                                                          Feb 2024 - May 2024

**Accepted in ISMAR 2024**

Piloting requires users to control and navigate the aircraft within a designated pathway, with a controller that utilizes two joysticks to control the aircraft. This task is representative of various daily and gaming scenarios, such as controlling the aircraft to capture the photo or navigating an object in a game from the start position to the end via a trajectory. In this work, we explore a model (based on the Steering Law) that predicts the piloting time required in spatial-constrained environments.Developed a model predicting piloting time in constrained environments based on path curvature and spatial constraints. Achieved 52.6% improvement in $R^2$.

Unity development, data analysis, and model fitting.

## Impact of Tutorial Modes with Different Time Flow Rates in Virtual Reality Games

**Second Author**                                                                                          Nov 2023 - Feb 2024

**SI3D 2024**

Evaluated effects of four VR tutorial modes with different time flows: traditional guide, slow motion, bullet time, and context-relevant on player engagement and performance.

Contributed to experiment design and Unity development.

## OnArmQWERTY: An Empirical Evaluation of On-Arm Tap Typing for AR HMDs

**Third Author**                                                                                          Oct 2023 - Jul 2024

**SUI 2024**

This paper introduces OnArmQWERTY, a text entry technique for AR HMDs that allows users to project a virtual QWERTY keyboard onto various locations on their non-dominant hand. The results demonstrate that OnArmQWERTY significantly improves typing speed and accuracy.

Served as Unity developer.