

Dr. Yunbo Zhang

MSc	The Hong Kong University of Science and Technology Major: Mechanical Engineering   GPA 4.0/4.0   Advisor: <a href="#">Prof. Kai Tang</a>	Aug. 2018- Jun. 2019
BS	Nanjing University of Aeronautics and Astronautics , P. R. China Major: Aircraft Design and Engineering   GPA 3.9/5.0 Rank 35/302	Sept. 2014- Jun. 2018

## PROFESINAL EXPERIENCE

### MR HMD

	Institute of Technology	Aug. 2019– May. 2023
Responsible for supporting and assisting <a href="#">Dr. Yunbo Zhang</a> in various research activities and projects		
<ul style="list-style-type: none"><li>- Set up the research laboratory with robot manipulators ( Aubo, UFactory) and VR HMDs (Oculus Rift, Quest 1/2/3/pro).</li><li>- Conducted research in human-robot interaction , smart manufacturing , and AR/VR development.</li></ul>		
Research Intern	OPPO US ResearchCenter (Innopeak Tech)	Jun. 2022– Sep. 2022
Research ofMixed Reality robot remote control system		
<ul style="list-style-type: none"><li>- Designed and developed the innovative MR teleoperation system using an Automated Guided Vehicle (Rover Pro) .</li><li>- Implemented the teleoperation system on Microsoft HoloLens 2 with real -</li></ul>		

Teaching Assistant

Materials Processing (ISEE-140)

Aug. 2021 – Dec. 2021

Guided undergraduates on a project with fabrication processes, including cutting, molding, casting, forming, milling, powder metallurgy, solid modeling, and engineering drawing.

## SELECTED PUBLICATIONS

Chuhua Xian, Jun Zhang, Kun Qian, Wenhao Yang, and Yunbo Zhang. Depth Map Completion and Super-Resolution by Multi-Scale Progressive Fusion Strategy. *Journal of Intelligent Manufacturing*, 2024.

Yang, Wenhao, and Yunbo Zhang. "A Global Correction Method for Camera Registration in Video See-Through Augmented Reality Systems". *Journal of Computing and Information Science in Engineering*, 2023.

Yang, Wenhao. "A Global Correction Method for Camera Registration in Video See-Through Augmented Reality Systems". *Journal of Computing and Information Science in Engineering*, 2023.

Engineered the development of a tele-robot control system that utilizes a Mixed Reality headset (HoloLens 2), to remotely control Automated Guided Vehicles (Rover Pro). The system features a user-friendly interface that offers three control methods: motion control, physical button control, and virtual button control.

A global calibration to solve the misregistration problems in the VST AR system Oct. 2021–Feb. 2023  
Proposed a calibration method for the registration problem in a Video See-Through Augmented Reality (VSTAR) system. This study investigates 4 error sources and presents an efficient calibration procedure to reduce the misalignment accuracy via HMD-to-Camera transformation.

Augmented reality assisted smart factory management system development Dec. 2021–Feb. 2022  
Developed an AR headset-based prototyping system to offer a clear and intuitive digital visualization, aiming to explore the potential applications in smart factories. This project presents a case study of a mai /TT1 1 ma (t)Tt (

Excellent Student Scholarship, 2019.

Outstanding Graduate in NUAA, 2018.

Straight-A Student, NUAA, 2014-2015, 2015~~2~~2016, 2016~~2~~2017 & 2017~~2~~2018.

Award of Pacemaker to Merit Student (Only one in each major), NUAA, 2014 -2015.

A-Level Scholarship (Only top 5% of students), NUAA, 2014-2015, 2015~~2~~2016 & 2017~~2~~2018.

National Encouragement Scholarship, 2014~~2~~2015.

Outstanding Student Cadre in NUAA, 2015- 2016.

'SANHE CUP' National Network Contest for Helicopter, First Prize, 2016.