

QUE LIU

<https://que-liu.github.io/>

☎ (+86)13107882623 ✉ qliu9@nd.edu 🌐 github.com/que-liu

Education

University of Shanghai for Science and Technology

Sept 2021 – Jun 2025 (Expected)

Bachelor's Degree in Intelligence Science and Technology (GPA: 3.52/4.00)

Shanghai, China

Publications

1. Xing, Yunhao, **Que Liu**, Jingwu Wang, and Diego Gomez-Zara. “SMoRe: Enhancing Object Manipulation and Organization in Mixed Reality Spaces with LLMs and Generative AI.” *arXiv [Cs.HC]*, 2024. Available at: <http://arxiv.org/abs/2411.11752>.
2. Muhammad Salman Abid, Mrigank Pawagi, Sugam Adhikari, Xuyan Cheng, Ryed Badr, Md Wahiduzzaman, Vedant Rathi, Ronghui Qi, Choiyin Li, Lu Liu, Rohit Sai Naidu, Licheng Lin, **Que Liu**, Asif Zubayer Palak, Mehzabin Haque, Xinyu Chen, Darko Marinov, and Saikat Dutta. “GlueTest: Testing Code Translation via Language Interoperability.” In *Proceedings of the 40th International Conference on Software Maintenance and Evolution (ICSME'24) - NIER Track*, 2024.

Relevant Coursework

- Machine Vision (92)
- Autonomous Mobile Robots (98)
- Machine Learning (93)
- Robot Vision System and Measurement (92)

Research Experience

Human-Computer Interaction Research Group

Jul 2024 – Present

Undergraduate Researcher supervised by Prof. Diego Gómez-Zará

University of Notre Dame

- Integrated depth camera with visual SLAM (Simultaneous Localization and Mapping) on ROS (Robot Operating System) to achieve scene understanding and environmental mapping in mixed reality setups.
- Developed a VR meeting room prototype using Unity and Photon Networking to create multi-user, immersive environments, improving virtual collaboration in distributed teams.
- Applied Unity's XR interaction toolkit to create intuitive user controls and interactions, ensuring seamless communication between the VR hardware and software.
- Collaborated with teams on mixed reality projects that leveraged AI-driven environmental recognition to enhance object detection and manipulation in mixed reality spaces.

Summer Undergraduate Research in Software Engineering

Aug 2023 – Jan 2024

Remote Undergraduate Researcher supervised by Prof. Darko Marinov

University of Illinois Urbana-Champaign

- Assisted in identifying and establishing a pipeline of clients for library translation services, while testing compatibility and stability of client integrations.
- Leveraged Linux environments for efficient development, utilizing Docker containers for consistent development setups and scaling applications. Utilized GitHub for team collaboration and code review.
- Modified and optimized XML configuration files for better modularity and compatibility across multiple Maven-based Java projects.
- Resolved complex Python packaging and dependency conflicts within Java runtime environments, enhancing cross-language integration.

School Of Computing Summer Workshop

Jul 2023

Visiting Student

National University of Singapore

- Developed a 2D game from scratch within a 3-week timeframe, collaborating with group members.
- Acquired proficiency in Unity and C# for 2D game development.

Skills

Programming: Python, C#, C, C++, Java, Matlab, SQL

Tools and Frameworks: ROS, Unity, Docker, Git, PyTorch

Engineering: RealSense, Altium, Keil

Languages: English (TOEFL: 106), French (intermediate), Chinese (native)