

YU Shiqi

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EDUCATION

Northeastern University Boston, USA
PhD Student in Interdisciplinary Design and Media Sep. 2024 -

- Research: Human-computer interaction (HCI), Extended reality (XR), Healthcare.

University of Edinburgh Edinburgh, UK
M.S. in Design Informatics - School of Informatics Sep. 2021 - Nov. 2022

- Research: Human-computer interaction (HCI), Extended reality (XR), Data Visualization.
- Thesis: An Immersive 3D Visualization of Medical Data in HoloViz Office Advise by Benjamin Bach

Beijing Language and Culture University Beijing, China
B.ENG in Digital Media Technology- School of Information Science Sep. 2017 - Jul. 2021

PROFESSIONAL EXPERIENCE & RESPONSIBILITIES

Northeastern University Boston, USA
Research Assistant Sep. 2024 - Dec. 2024

- Conduct a literature review related to XR, immersive analytics, and robotics.
- Build an XR robot demonstration in Unity.
- Work in the Reality Design Studio led by Wallace Lages.

Cranfield University Bedford, UK
Research Fellow in XR- School of Aerospace, Transport and Manufacturing Apr. 2024 - Aug. 2024

- Contributed to the *Faraday Battery Challenge* and Innovate UK's *DEBUT-WM project*, developing XR training solutions for automotive battery manufacturing.
- Collaborated with University College Birmingham, University of Warwick, and RAVMAC Ltd to create VR demos showcased at the *Battery Cells & Systems Expo and Cenex Expo 2024*.
- Conducted XR research, produced publications, managed project tasks, and coordinated with industry partners to deliver practical outcomes.
- Supported funding proposals and supervised students, fostering academic and technical development.

University of Greenwich London, UK
XR Software Developer - School of Computing and Mathematical Sciences Apr. 2023 - Apr. 2024

- Participation in the Social and Human Centered XR (SUN) project, a European Union-funded project that aims to integrate the physical and virtual worlds through XR.
- Develop a testbed for conducting cyberattacks on XR.
- Develop an intrusion detection mechanism that can detect cyber threats to XR.

RESEARCH

DEBUT WM - Digitally Enhanced Battery Ubiquitous Training Bedford, UK
Research Fellow in XR Apr. 2024 - Aug. 2024

- Provide VR training solutions for battery manufacturing in the automotive industry, as part of Innovate UK's Faraday Battery Challenge. (Pico, Unity3D)

XR Security Testbed: Crafting Attack Scenarios for Privacy Protection London, UK
XR Software Developer & Research Team Lead Apr. 2023 - Apr. 2024

- Pioneered an XR security testbed to address the need for privacy threat research in XR. Utilized the platform to demonstrate and analyze four significant privacy attacks, showcasing the testbed's capabilities for developing and testing security measures. (Oculus Quest, HoloLens, Unity3D)

An Immersive 3D Visualization of Medical Data in HoloViz Office Edinburgh, UK
Developer Jan. 2022 - Aug. 2022

- Demonstration of the functionality of the interactive workspace by displaying medical 3D data in the HoloViz Office. (HoloLens, Magic Leap, Unity3D)
- Postgraduate thesis supervised by Dr. *Benjamin Bach*

Text-based Dynamic Video Generation for Virtual Reality Scenes Edinburgh, UK
Developer Jan. 2022 - Apr. 2022

- Developed 'TIV' (Text-Image-Video), a framework for converting text descriptions into dynamic VR scene videos, enhancing immersive virtual experiences. (TensorFlow)

Virtual Reality (VR) for Nutritional Awareness Research Project Edinburgh, UK
Lead Researcher & Developer Jan. 2022 - Apr. 2022

- Orchestrated the research and development of an immersive virtual reality application, known as *FALLING MANNA*, designed to enhance dietary self-tracking and engage users with Scottish food culture. (Oculus Rift, Unity3D)

HCI Research for Health Services Data Management Edinburgh, UK
Developer Jan. 2022 - Apr. 2022

- Developed a sophisticated Student Health Services Data Management application, advancing data security and user interaction paradigms within the healthcare education sector.

Accessibility-Oriented Cartography Research with PATTERNMAP Edinburgh, UK
Developer Sep. 2021 - Dec. 2021

- Pioneered accessibility research and developed *PATTERNMAP*, a web platform that employs colorblind-friendly design, leveraging *Google Earth Engine* and *EarthBlox* for secure and inclusive geospatial data representation.

HCI-Driven Post-traumatic stress disorder (PTSD) Therapy Innovation Edinburgh, UK
Developer Sep. 2021 - Dec. 2021

- Spearheaded an HCI-focused research initiative to create *Dream Controller*, a conceptual therapeutic aid designed to ameliorate sleep disturbances in PTSD patients. Emphasized rigorous research methodologies to inform product design, emphasizing empathetic user engagement and secure, private data protocols.

MISCELLANEOUS

- **Domains Covered:** - XR & Machine learning & Game development (project experience); 3D animation production (modeling experience); Video and image processing (simple project experience)
- **Programming** - Project experience in Python (moderate) & C# (moderate); C/C++ (basic)
- **IT Skills:** - Unity3D (proficient) & 3ds Max (moderate, project experience); Adobe After Effects & Adobe Audition (average); MATLAB (basic)
- **Language** - English (fluent); Mandarin (native)