

# 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

- Conducting XR research within a portfolio of projects.
- Produce high-quality publications and reports on XR research findings.
- Manage project components and liaise with industrial partners.
- Engage in proposal development for new research initiatives.
- Support the academic development of students through supervision and teaching.

**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**

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- **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)