

YU Shiqi

shiqiyu1412@gmail.com
<https://www.yu-shiqi.com/>
linkedin.com/in/shiqiyu1412

EDUCATION

Northeastern University

PhD Student in Interdisciplinary Design and Media

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

Boston, USA

Sep. 2024 - Dec. 2025

University of Edinburgh

M.S. in Design Informatics - School of Informatics

Edinburgh, UK

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

B.ENG in Digital Media Technology- School of Information Science

Beijing, China

Sep. 2017 - Jul. 2021

PROFESSIONAL EXPERIENCE & RESPONSIBILITIES

Northeastern University

Boston, USA

Teaching Assistant - COMM 2110: Sports Communication

Sep. 2025 - Dec. 2025

- Lead discussion sections for 120 students across two sections (60 students each) in undergraduate sports communication course.
- Design and facilitate weekly case study discussions examining real-world sports communication scenarios and crisis management.
- Manage collaborative team exercises that apply communication theory to contemporary sports media issues.
- Grade and provide feedback on weekly case preparation documents, exams, and participation for 120 students.
- Conduct office hours to support student learning in sports media ethics, systems theory, and crisis communication.
- Bridge technical expertise in HCI/XR with communication studies to enhance student understanding of emerging sports media technologies.

Northeastern University

Boston, USA

Research Assistant – Teaching with XR in Higher Education

Sep. 2024 - Aug. 2025

- Supporting long-term integration of XR technologies into graduate education through platform evaluation, research synthesis, and pilot experience design for the MS in Creative Technologies program.
- Conducted stakeholder interviews to identify pedagogical needs, curricular gaps, and XR opportunities across disciplines.
- Performed a structured literature review of 40+ peer-reviewed studies on XR implementation in higher education (2020–2025).
- Built a comparative analysis of XR platforms (e.g., Engage, Spatial, VRChat) for classroom use, highlighting strengths, limitations, and use cases.
- Synthesized insights to inform the design of pilot XR classroom experiences focused on remote lectures and collaborative project work.
- Advised on implementation strategies including platform selection, student interaction models, and faculty training considerations.

- 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

- Non-Occlusive XR for Older Adults with KOA: Improving Adherence & Pain Management via Wearable Sensors** Boston, USA
Researcher & Developer Jan. 2025 - May. 2025
- Designing see-through XR solutions combined with wearable biofeedback and exergames to support older adults with pain management and exercise adherence.
 - Collaborating with interdisciplinary teams to ensure user-friendly interfaces and validate clinical outcomes.

- 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)

- HoloViz Office: Location-Independent Mixed Reality Workspace for 3D Medical Data Visualization** 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
 - Work accepted for poster presentation at ACM VRST 2025

- 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)