YUEYING ZHANG

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EDUCATION

2022- **Master of Architecture**, Institute of Architectural History and Theory, Southeast University

Thesis: *Historical Reconstruction and Experience in Multidimensional Spacetime: A Study on Spatial Narratives and Value Interpretation of Built Heritage through Mixed Reality Gamification*

Awards: National Scholarship for Postgraduate Student (Top 0.4%); Digital Design Scholarship (Sponsored by SEU Education Foundation, Top 1%); The 8th National Intercollegiate Timber Structures Design Competition (Heritage Renovation Project, 3rd Prize).

2017-2022 **Bachelor of Architecture**, Southeast University

Thesis: *Reimagining Heritage: An Interactive Virtual Exhibition in Reconstructed Historical Campus Spaces for the 2022 Architecture Graduation Show at Southeast University*

Awards: National Scholarship for Undergraduate Student (Top 0.2%).

RESEARCH INTERESTS

- XR Technologies (VR, AR, and MR) for Enhancing the Interpretation and Presentation of Asian Cultural Heritage.

PUBLICATIONS

- **Zhang, Y.*** (2024). '**Digitizing the Past for the Future: A guideline for developing AR-CH applications in situ for urban heritage interpretation and management**'. in *Data-Driven Intelligence - Proceedings of the 42nd Conference on Education and Research in Computer Aided Architectural Design in Europe. eCAADe 2024*, Nicosia: CUMINCAD, pp. 187–196. doi: https://papers.cumincad.org/cgi-bin/works/paper/ecaade2024_309.
- **Zhang, Y**. and Huang, X.* (2024). '**Integrating Extended Reality (XR) in Architectural Design Education: A Systematic Review and Case Study at Southeast University (China)'**. *Buildings*. Multidisciplinary Digital Publishing Institute, 14 (12), p. 3954. doi: 10.3390/buildings14123954.
- **Zhang, Y.***, Wang, H. and Zhu, K. (2023). '**Integrating Heritage Preservation and City Development: A Design Framework for Digital Interactive System Based on Augmented Reality for the World Heritage Grand Canal**'. in *Human Centric - Proceedings of the 28th Conference of the Association for Computer-Aided Architectural Design Research in Asia. CAADRIA 2023*, Ahmedabad: CUMINCAD, pp. 727–736. doi: https://doi.org/10.52842/conf.caadria.2023.1.727

XR-DRIVEN DIGITAL HERITAGE RESEARCH

Mar.2023 – **An MR Serious Game for Spatial Narrative and Value Interpretation at Quanzhou Confucious Temple**
Independent Project, Funded by Postgraduate Practice Innovation Program of Jiangsu Province

- Conducted a systematic review of gamified AR/MR applications at cultural heritage sites, analyzing spatial interaction, interpretive strategies, and authenticity concerns with reference to UNESCO and ICOMOS charters.
- Designed a gamified MR experience at the Confucius Temple in Quanzhou, using game mechanics to interpret heritage values across spatial scales—from site layout to architectural details.
- Built the MR application using Meta Quest 3S and Unity3D, employing spatial anchors to enable multiscale registration of virtual content across the heritage site.
- Used real-time tracking and user feedback to evaluate player engagement and interpretive effectiveness, with critical reflection on how gamified MR experiences influence perceptions of heritage authenticity.

Jul.2023 – Sep.2024 **AR Guidance Games for Historical Districts in Shanghai and Religious Temples in Quanzhou**
Team Leader

- Designed site-specific AR treasure hunt games incorporating puzzle-solving mechanics to engage users with tangible and intangible cultural heritage.
- Developed the applications using Unity3D with Vuforia and ARFoundation SDKs, enabling real-time localization and interactive content delivery across two distinct heritage sites.
- Conducted a comparative analysis of how site typology, spatial organization, and localization technologies collectively shape user interactions and AR game design strategies in heritage environments.

Feb.2021 – Jun.2022 **An Immersive Virtual Exhibition for Graduation Works in a Digitally Reconstructed Historic Campus**
Independent Project

- Conducted a global survey and visual analysis of virtual graduation exhibitions across 80 architecture schools, comparing trends before, during, and after the pandemic.
- Designed and developed a virtual exhibition platform using Unreal Engine, reconstructing Southeast University's historic campus as the digital exhibition venue.
- Integrated spatial navigation and interactive display features to present graduates' 3D architectural works within a digitally reimagined heritage setting, bridging contemporary design with collective memory.

HERITAGE CONSERVATION PRACTICE

Jul. 2021 - Nov. 2021 **Restoration and Planning Projects for Historical Sites in Quanzhou, Nanjing, and Nanxun**
Internship, Southeast University Architecture & Engineering Design Institute (Nanjing, China)

- Participated in historical research and planning for the restoration and environmental design of heritage sites, including the West Gate of Yongning Fort City (Quanzhou), Fengxiang Terrace (Nanjing), and Baoshan Street (Nanxun).
- Contributed to the revision of the Conservation Master Plan for the Grand Canal Cultural Heritage.

Aug. 2020 - Oct. 2020 **Curation Project: Old City of Kathmandu, Nepal – Intersections of Trade Routes and Religion**
Team Member

- Investigated the historical interplay between trade routes, religious practices, and ritual movement patterns, and their impact on the spatial and cultural evolution of Kathmandu's old city.
- Contributed to exhibition curation by designing visual materials (posters, brochures, display boards) to communicate research insights to the public.

CONFERENCES & WORKSHOPS

April 2025 **Symposium on Heritage in the Digital Age (Shanghai, China)**
Presented "*Spatiotemporal Narrative of Cultural Heritage: A Design Framework for Gamified Reality-Enhancing Technologies at Heritage Sites.*"

July 2023 **DigitalFUTURES+HFUT 2023 Computational Art & Tech Workshop (Hefei, China)**
Transformed archaeological materials on traditional Huizhou villages into AI-generated historical street imagery via Midjourney as team leader.

SKILLS

Language Skills	Chinese (native), English (fluent, IELTS 7.0: R-9.0, L-7.0, W-6.5, S-6.0)
Computer Skills	Proficient in programming with C# and Python
Game Engine	Proficient in rendering and interaction development in Unreal Engine, Unity3D
Modelling Software	Proficient in modelling with Rhinoceros 3D + Grasshopper, Blender, Sketchup, Revit, CAD, Zbrush
Design Software	Proficient in design with Adobe Photoshop, Illustrator, Indesign, Premiere
Other tools	ArcGIS, 3D Scanner, Pix4dmapper, CiteSpace, ScietoPy, VOSviewer