XIA SU

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PROFILE

I am 3rd year Ph.D. student in Computer Science at University of Washington. My research interest lies in Human Computer Interaction, with special focus on AR, accessibility and creativity support.

I'm currently exploring and building **AI+AR** tools that assists people sense and modify their surrounding environment, discover hidden creativity opportunity, and also improve knowledge gain and task performance in everyday life.

EDUCATION

University of Washington, Seattle, WA *Sep 2021 - May 2026*
PhD of Computer Science, in Human Computer Interaction. Instructed by Prof. Jon Froehlich

RWTH Aachen, Nordrhein-Westfalen, Germany *Oct 2016 - Feb 2017*
Exchange Study in Architecture

Tsinghua University, Beijing, China *Sep 2014 - June 2021*
Bachelor and Master of Architecture

SKILLS

Languages:	Mandrain Chinese (native), English (proficient), Deutsch (beginner)
Programming:	C, C++, C#, **Python**, HTML, Java, D3, SQL
Software & Tools:	Augmented Reality: **ARKit**, Unity Engine
	Mobile Developement: **Swift**, Android
	Machine Learning: Tensorflow, **PyTorch**, Sklearn
	Design: Adobe Photoshop, Adobe Illustrator, Adobe Indesign, Vray, Lumion
	Modelling & Fabrication: Rhinoceros, AutoCAD, SketchUp, 3D Printing

SELECTED PUBLICATION

Xia Su, Kaiming Cheng, Han Zhang, Jaewook Lee, Wyatt Olson and Jon E. Froehlich. RASSAR: Room Accessibility and Safety Scanning in Augmented Reality
Accepted and to Appear CHI 2024

Xia Su, Eunyee Koh, Chang Xiao. SonifyAR: Context-aware Sound Effect Generation in Augmented Reality
Accepted and to Appear in CHI 2024

Xia Su, Kaiming Cheng, Han Zhang, Jaewook Lee, Wyatt Olson and Jon E. Froehlich. 2023. A Demonstration of RASSAR: Room Accessibility and Safety Scanning in Augmented Reality
ASSETS 2023 Link

Liang He, **Xia Su**, Huaishu Peng, Jeffrey I Lipton, and Jon E Froehlich. 2022. Kinergy: Creating 3D Printable Motion using Embedded Kinetic Energy. Proceedings of UIST 2022 (2022). DOI

Xia Su, Chenglin Wu, Wen Gao, and Weixin Huang. 2022. Interior Layout Generation Based on Scene Graph and Graph Generation Model. In Design Computing and Cognition'20, Springer International Publishing, Cham, 267–282. DOI

Weixin Huang, **Xia Su**, Mingbo Wu, and Lijing Yang. 2020. Category, process, and recommendation of design in an interactive evolutionary computation interior design experiment: a data-driven study. AI EDAM 34, 2 (May 2020), 233–247. DOI

INDUSTRY EXPERIENCE

Adobe Research, San Jose, CA   *June 2023 - September 2023*
Research Intern
- Internship in the AEL group led by Dr. Eunyee Koh. Mentored by Dr. Chang Xiao
- Designing and implementing AR authoring pipeline that generate context-aware AR sound in real time

Microsoft Research Asia, Beijing, China   *June 2020 - March 2021*
Research Intern
- Internship in Software Analysis (SA) group, instructed by Dr. Weiwei Cui
- Designing and implementing automatic retrieval pipelines to refine PowerPoint slide layouts

RECENT RESEARCH

SonifyAR: Context-aware Sound Effect Generation in Augmented Reality   *June 2023 - September 2023*
Adobe Research. Instructed by Dr. Chang Xiao and Dr. Eunyee Koh

RASSAR: Room Accessibility and Safety Scanning in Augmented Reality   *Apr 2022 - Now*
Makeability Lab, School of Computer Science, University of Washington. Instructed by Prof. Jon Froehlich

Kinergy: 3D Printable Motion using Embedded Kinetic Energy   *Apr 2020 - Apr 2022*
Makeability Lab, School of Computer Science, University of Washington. Instructed by Prof. Jon Froehlich

Retrieve-and-Apply: Refining Graphic layouts Using Examples   *June 2020 - March 2021*
Intern Research at Microsoft Research Asia, under the instruction of Principle Researcher Dr. Weiwei Cui

Image-based Interior Design Visual Style Classification and Interpretation   *Jun 2020 - Jun 2021*
Master Thesis Research, School of Architecture, Tsinghua University. Under the instruction of Prof. Weixin Huang

3D Indoor Synthesis based on Online Images and Graph Neural Network   *Jun 2019 - Feb 2020*
Master Research, School of Architecture, Tsinghua University. Under the instruction of Prof. Weixin Huang

Data Analysis and Recommender System for Interactive Evolutionary Computation Design System *Oct. 2018 - Feb. 2019*
Master Research, School of Architecture, Tsinghua University. Under the instruction of Prof. Weixin Huang

SELECTED AWARDS & HONORS

- Huaxia Construction Science and Technology Award, First Prize, as team member.
- 2020 Design Future Award, Oppo Campus Renovators Global Emerging Artist Project, as team member.
- 2018 AEDAS Innovation Scholarship
- Tsinghua University Academic Scholarship