

# Calvin Zhiwen Qiu

*HCI Researcher | UX Designer*

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## RESEARCH STATEMENT

My research interests sit at the intersection of HCI, AR/VR, and AI. I study the design, build, and evaluation of interactive social computing systems to enhance wellbeing for vulnerable populations within real-world contexts, using cognitive psychology and design theories.

## EDUCATION

- Cornell University**, Ithaca, NY 08/2022 – 05/2024  
M.A. in Human Centered Design, Minor in Computer Science  
*Advisors:* Saleh Kalantari, Abe Davis
- University of California, Los Angeles**, Los Angeles, CA 09/2016 – 06/2019  
Master of Architecture and Building Technology
- Georgia Institute of Technology**, Atlanta, GA 08/2011 – 05/2016  
B.S. in Architecture, Minor in Mathematics

## RESEARCH EXPERIENCE

- Research Assistant**, Design + Augmented Intelligence Lab (DAIL) 08/2022 – Present  
Cornell University, *advised by Dr. Saleh Kalantari*
- Lead research on the use of AR/VR to enhance indoor navigation skills and spatial learning for older adults, focusing on the role of human-environment interaction.
  - Contribute to systematic review projects investigating the impact of AR on wayfinding studies and determining factors affecting acceptance of social assistive robots (SAR) by the elders.
- Research Assistant**, Design-User Experience Technology Lab (DUET) 08/2022 – 12/2022  
Cornell University, *advised by Dr. So-Yeon Yoon*
- Investigate effects of window size and placement on spatial perception, interaction, and preference for small living spaces (64 sq. ft) with AR technology.
- User Experience Researcher**, Ads & Commercial Team 06/2020 – 10/2021  
Kuaishou Technology, Beijing, China
- Interviewed Kwai Ads Manager advertisers to understand how they use the platform through methods of focus group, contextual inquiry, customer feedback and usability testing.
  - Performed quantitative analysis of behavior on how ads interface design influences the CTR/CVR performances of different types of splash ads (static, full-screen, interactive).

## PUBLICATIONS

### Conference Paper and Poster (*Under Review*)

- c.1. **Zhiwen (Calvin) Qiu**, Mojtaba Ashour, Xiaohe Zhou, Saleh Kalantari. 2023. NavMarkAR: A landmark-based augmented reality (AR) navigation system for enhancing older adults' spatial learning. **Under Review (second round)** for *2024 CHI Conference on Human Factors in Computing Systems (CHI '24)*. [arXiv.pdf](#). [online](#).
- c.2. **Zhiwen (Calvin) Qiu**, Hsin-Ming Chao, Mengye Zhu, Chaoyu Wang, Saleh Kalantari. 2023. EncoreLife: A gamified platform to enhance older adults' social connections, feelings of achievement and daily life structure. **Under Review** for *2024 Late-Breaking Work at the Conference on Human Factors in Computing Systems (CHI LBW '24)*. [pdf](#). [online](#).

### Journal Articles

- j.1. **Zhiwen (Calvin) Qiu**, Armin Mostafavi, Saleh Kalantari. 2023. Use of augmented reality in human wayfinding: A systematic review. **Under Review** for *Advanced Engineering Informatics*. [arXiv](#). [pdf](#).
- j.2. **Zhiwen (Calvin) Qiu**. 2021. Kwai Star Platform: Design and implementation of an influencer marketplace system. *Industrial Design Research*, 1, 114-120. [doi](#). [pdf](#).

### Working Papers

- w.1. Serena Guo, **Zhiwen (Calvin) Qiu**, Bill Xu, Divya D. Suresh, Keith Green. 2023. Designing an AR-supported dental-care experience to enhance social comfort and independence for individuals with autism. Targeting submission for *2024 Conference on Computer Supported Cooperative Work and Social Computing (CSCW '24)*. [online](#).
- w.2. Hangyu Zhou\*, **Zhiwen (Calvin) Qiu**\*, Nusrat B. Nizam\*, Bharath Hariharan. 2023. Multi-channel visual-language pretraining for sign language translation. Targeting submission for *2024 European Conference on Computer Vision (ECCV '24)*. [online](#).  
\*equal contribution
- w.3. **Zhiwen (Calvin) Qiu**\*, Mojtaba Ashour\*, Qi Yang, Bill Xu, Saleh Kalantari. 2023. Identifying design strategies in architectural practices that contribute to wayfinding in healthcare environments. In: *TBD*. Targeting submission for 2024.  
\*equal contribution
- w.4. Saleh Kalantari, Qi Yang, Bill Xu, **Zhiwen (Calvin) Qiu**, Mojtaba Ashour et al. 2023. Assessing impacts of layout configuration and view-out dynamics on wayfinding for older adults in virtual reality. In: *TBD*. Targeting submission for 2024.

### Extended Abstracts

- e.1. **Zhiwen (Calvin) Qiu**, Debbie Jung, Sydney Polando, Chloe Chen, Saleh Kalantari. 2023. Effects of manipulated daytime experience on mood, stress, and productivity in a work environment. In *Extended Abstracts of 54<sup>th</sup> Annual Conference of Environmental Design Research Association (EDRA 54)*. [pdf](#). [online](#).
- e.2. **Zhiwen (Calvin) Qiu**, So-Yeon Yoon. 2023. Effects of window size and placement on perceived comfort and preference of small living spaces: A pilot study using augmented reality with a physical mockup. In *Extended Abstracts of EDRA 54*.

## ACADEMIC SERVICE

### Reviewer

ACM Conference on Human Factors in Computing Systems (CHI) 2024

### Presentation

**Presenting Author**, EDRA 54 06/2023

*Topic: Work Environment/Ambient Lighting*

**Invited Participant**, Cornell XR Collaboratory 10/2022

### Teaching

**DEA 6520 The Ambient Environment**, Teaching Assistant, Cornell University *Fall 2022*

**Rural Volunteer Teacher**, Dashanxiao'ai NGO, Guizhou Province, China *Fall 2019*

## PROFESSIONAL EXPERIENCE

**UX Designer/Product Manager**, Ads & Commercial Team 02/2020 – 04/2022

Kuaishou Technology, Beijing, China

- Designed Kwai Ads Manager that enables advertisers to create marketing campaigns on Kwai Video app, including user research, interaction and interface design, and working with engineers to build prototypes based on user feedback and tech constraints.
- Developed Magnet Design system to help internal teams build digital experiences for business products, including design guidelines, components and developer resources.

**Co-Founder**, PokeMap Technology 08/2020 – 06/2021

Shanghai, China

- Launched PokeMap app that aims to expedite social assimilation of migrant workers by combining social network and city exploration in customized user generated maps.
- Tested with 200 users and iterated products based on feedback, and had estimated 120 DAU, 1,000 MAU with 30% retention rate and 40% Product/Market Fit value.

**Design Intern**, Global Production Service (GPS) 06/2018 – 12/2018

Amazon.com, Inc., Beijing, China

- Designed promotional customer-centric graphics and landing pages by integrating marketing objectives, target audiences, and design strategies for multiple Amazon marketplaces.

**AR Product Design Intern**, Department of Artificial Intelligence 06/2017 – 09/2017

NetEase Inc., Hangzhou, China

- Designed human-AR interfaces for marketing campaigns and AR embodied agent 3D modeling, combining human multi-sensory modalities with physical and contextual parameters.

## SELECTED PATENTS

- p.1. **Zhiwen Qiu**. 2022. *A Method for Multimedia Push Notifications, Electronic Device, and Storage Medium*. Chinese Patent No. CN202111551384.2, authorized on May 3, 2022. [link](#).
- p.2. **Zhiwen Qiu**. 2022. *A Method for Data Display, Electronic Device, Storage Medium, and Process*. Chinese Patent No. CN2021111356818.3, authorized on Mar. 18, 2022. [link](#).
- p.3. **Zhiwen Qiu**, Yun Wang. 2021. *Graphical User Interface Design of Mobile Application Webcast Display Ads*. Chinese Patent No. CN306541756S, authorized on May 14, 2021. [link](#).
- p.4. **Zhiwen Qiu**, Xinyi Yin, Yiding Zhao. 2021. *Method to Process Coupon Information to Video-Sharing Social Network*. Chinese Patent No. CN112199553A, authorized on Jan. 8, 2021. [link](#).

## SELECTED AWARDS & HONORS

- a.1. **Design Excellence Award**, Kuaishou Technology 2022
- a.2. **Finalist**, User Experience Design Award (UXDA), China 2021
- a.3. **Best Intern Award**, Amazon.com, Inc. 2018
- a.4. **Dean's List**, University of California, Los Angeles 2017 - 2019

## SKILLS

**Research:** Interview, Survey, Participatory Design, Ethnographic Study, Contextual Inquiry, Experimental Design, Thematic Analysis

**Human-Centered Design:** Use Experience Design (Figma, Adobe Creative Suite), 3D Modeling (Rhino3D, Blender, C4D), Generative Design (Processing, Grasshopper), Graphic Design

**Computing:** Unity3D (AR/VR Development), Machine Learning (TensorFlow, PyTorch), Front-End Development (HTML/CSS, JavaScript, Vue.js, Swift), Statistical Analysis (R, Numpy, Pandas, SPSS)

**Prototyping:** 3D Printer, Laser Cutting, Fabrication and Hardware Assembly, Basic Circuit Design