

JING QIAN

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Education

2016 - 2022(expected)

Ph.D. in Computer Science
Brown University, Providence, RI

2013 - 2015

M.F.A in Fine Arts
University of Pennsylvania, Philadelphia, PA

2006 - 2010

B.A. in Design and Media Arts
University of California, Los Angeles, CA

Research Experience

Adobe Research, Research Intern

June 2021 - Sep 2021, Remote

- A prototype exploring merging smartphone's 2D content into the AR space.
- Demos to explore the initiative of "document everything" in AR / VR.

Adobe Research, Research Intern

June 2019 - Sep 2019, San Jose, CA

- Published the Dually Noted demo at Adobe Summit Sneaks (5% selection rate).
- Created an AR system that uses a document extraction model to improve interaction efficacy for annotation.

Fuji Xerox Research Laboratory in Palo Alto, Research Intern

May 2018 - Aug 2018, Palo Alto, CA

- Designed and programmed an empirical study for understanding interaction modality and distances.
- Created an AR demo to demonstrate benefits of toggling interaction distances on smartphones.

Brown HCI Lab, Research Assistant

Aug 2016 - Present, Brown University, Providence, RI

- Researched on adaptive free-hand interfaces, including system building, data analysis, and experimentation.
- Mentored graduate and undergraduate students for research ideation, discussion, and career planning.
- Open-sourced two systems with media exposure over 100,000 views.
- Co-edited papers and grant.

MIT Media Lab, Visiting Student

Nov 2015 - Jun 2016, Massachusetts Institute of Technology, Cambridge, MA

- Assisted the PI in designing and program social VR applications.
- Used brainwave signals to explore the user attention and engagement in the VR environment using iMotions.
- Worked on a vision-based tactile obstacle avoidance device for visually impaired users.

UPenn xLab, Research Assistant

June 2015 - Oct 2015, University of Pennsylvania, Philadelphia, PA

- Designed contextual lighting and its authoring tool for improving personal home entertainment experiences.
- Programmed a visualization tool for a grid-based pressure sensing device.

Publications *equal contribution

Peer-Reviewed

Dually Noted: Layout-aware cross-device annotations with smartphone augmented reality

Jing Qian, Qi Sun, Curtis Wigington, Han L. Han, Tong Sun, Jennifer Healey, James Tompkin, Jeff Huang
Conference on Human Factors in Computing Systems (Conditionally Accepted to CHI 2022) [pdf](#) [▶](#)

FocalPoint: Adaptive direct manipulation for selecting small 3D virtual objects

Jiaju Ma, Jing Qian, Tongyu Zhou, Jeff Huang
Conference on Human Factors in Computing Systems (under review) [pdf](#) [▶](#)

Exploring free-hand AR drawing with a dual-display smartphone-wearable paradigm

Jing Qian*, Tongyu Zhou*, Meredith Young-Ng*, Jiaju Ma, Angel Cheung, Xiangyu Li, Ian Gonsler, Jeff Huang
Designing Interactive Systems Conference 2021 (DIS 2021) [doi](#) [pdf](#) [▶](#)

A virtual reality memory palace variant aids knowledge retrieval from scholarly articles

Fumeng Yang, Jing Qian, Johannes Novotny, David Badre, Cullen D. Jackson, David H. Laidlaw
IEEE Transactions on Visualization and Computer Graphics (TVCG 2020) [doi](#) [pdf](#) [▶](#)

Modality and depth in touchless smartphone augmented reality interactions

Jing Qian, David A Shamma, Daniel Avrahami, Jacob Biehl
ACM International Conference on Interactive Media Experiences (IMX 2020) [doi](#)

Portalware: A smartphone-wearable dual-display system for expanding the free-hand interaction region in augmented reality

Jing Qian, Meredith Young-Ng, Xiangyu Li, Angel Cheung, Fumeng Yang, Jeff Huang
Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems (CHI LBW 2020) [doi](#) [pdf](#)

Portal-ble: Intuitive free-hand manipulation in unbounded smartphone-based augmented reality

Jing Qian, Jiaju Ma, Xiangyu Li, Benjamin Attal, Haoming Lai, James Tompkin, John F Hughes, Jeff Huang
Proceedings of the ACM Symposium on User Interface Software and Technology (UIST 2019) [doi](#) [pdf](#) [▶](#)

Remotion: A motion-based capture and replay platform of mobile device interaction for remote usability testing

Jing Qian, Arielle Chapin, Alexandra Papoutsaki, Fumeng Yang, Klaas Nelissen, Jeff Huang
Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (UbiComp 2018) [doi](#) [pdf](#) [▶](#)

Juried

Fluxa: Body movements as a social display

Xin Liu, Katia Vega, Jing Qian, Joseph Paradiso, Pattie Maes
Proceedings of the ACM Symposium on User Interface Software and Technology (UIST Poster 2016) [doi](#) [pdf](#) [▶](#)

Personalizing 3D free-hand input for intuitive smartphone augmented reality interactions

Jing Qian
UIST 2020 Doctoral Symposium [doi](#) [pdf](#)

Patent

Sharing of user markings between printed and digital documents

Tong Sun, Qi Sun, Jing Qian, Curtis Michael Wigington
US Patent App. 16/834,940

Teaching

Invited Lecture on Augmented Reality, User Interfaces and User Experience, Brown University

Instructor: Jeff Huang, 2019, students: 200

Teaching Assistant, Human-Computer Interaction Seminar, Brown University

Instructor: Jeff Huang, 2018, students: 20

Graduate Teaching Assistant, User Interfaces and User Experience, Brown University

Instructor: Jeff Huang, 2017 - 2018, students: 200

Visiting Lecturer, Topics on Data Visualization, China Academy of Art

Instructor: Jing Qian, 2013, students: 30

Teaching Assistant, Art, Design, and Digital Culture, University of Pennsylvania

Instructor: Keith Fledderman, David Comberg, 2013 - 2014, students: 20

Work Experience

Visiting Lecturer, China Academy of Art

Oct 2012 - July 2013, Hangzhou, China

- Lectured a class of 30 students titled Data Visualization from a design perspective.
- Introduced generative and rational design thinking to students.
- Mentored students with technique challenges, concepts framing, and deliverables.

Assistant Art Director, Wave Visual and Design,

May 2012 - May 2013, Shanghai, China

- Aided the creative director to lead a team of ten designers.
- Generated design concepts and visual guidance for the team and ensured the deliverables.
- Budgeting and branding.

Senior Designer, Pico Group

Oct 2011 - May 2012, Shanghai, China

- Designed showrooms, interactive spaces, UI/UX for mobile applications, and online materials.
- Created cross-media interactive history walls and brand walls.
- Worked directly with numerous project managers to solve client needs.

Frontend Designer / Developer, UCLA Alumni Association

Nov 2008 - Jun 2010, Los Angeles, CA

- Designed website UI layouts and printed graphics.
- Programmed an interactive flipbook system and a mapping system using Flash ActionScript 3.0.

Honors and Awards

Invitation & travel grant for UIST 2020 Doctoral Consortium

Brown University Travel Grant for UIST 2019

Brown University Travel Grant for UbiComp 2018

BVF Explore Grant at Brown University 2017

Paper Reviewing

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| 2019 - 2021 | ACM Conference on Human Factors in Computing Systems (CHI) |
| 2019 | IEEE Annual International Symposium Virtual Reality (VR) |
| 2019 | ACM Symposium on User Interface Software and Technology (UIST) |
| 2019 | Technical Committees for IEEE Workshop on Smart Service Systems (SmartSys) |

Mentorships

Mentored following students at Brown University for at least one semester on their independent research

2020 - 2021 Jiaju Ma, Enmin Zhou
2019 - 2020 Jiaju Ma, Meredith Young-Ng (now a Ph.D. student at UC Davis)
2018 - 2019 Jiaju Ma, Dinithi Silva-Sassaman (now a Ph.D. student at Dartmouth College), Xiangyu Li, Angel Cheung
2017 - 2018 Benjamin Attal (now a Ph.D. student at CMU), Haoming Lai, Leo Ko
2016 - 2017 Arielle Chapin , Parinda Wongbenjarat

Selected Media Press

PhD Student Jing Qian And Adobe Add AR Annotations To Physical Documents

Brown University, May 2020

<https://cs.brown.edu/news/2020/05/18/phd-student-jing-qian-and-adobe-add-ar-annotations-physical-documents/>

Adobe's Dually Noted adds AR annotations to physical books and documents

VentureBeat, April 2020

<https://venturebeat.com/2020/04/23/adobes-dually-noted-adds-ar-annotations-to-physical-books-and-documents/>

Brown University Unveils Portal-ble “Hands-On” Augmented Reality Technology

hackster.io, Oct 2019

<https://www.hackster.io/news/brown-university-unveils-portal-ble-hands-on-augmented-reality-technology-3adbc6766432>

‘Portal-ble’ reimagines reality by opening window into world of AR

Brown Daily Herald, Oct 2019

<https://www.browndailyherald.com/article/2019/10/portal-ble-reimagines-reality-by-opening-window-into-world-of-ar>