JING QIAN

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Education

2016 - 2022(expected)	**Brown University, PhD** *Computer Science, Providence, RI*
2016 - 2022(expected)	**Brown University, MS** *Computer Science, Providence, RI*
2013 - 2015	**University of Pennsylvania, MFA** *Fine Arts in Interactive Media, Philadelphia, PA*
2006 - 2010	**University of California Los Angeles, BA** *Design and Media Arts, Los Angeles, CA*

Research Experience

Adobe Research, Research Intern
June 2021 - Sep 2021, Remote

- Using AR technology to support multipage, rich media document arrangement and editing using limited screen space on a smartphone device.

Adobe Research, Research Intern
June 2019 - Sep 2019, San Jose, CA

- Created Dually Noted system (published in both CHI 2022 and Adobe Summit Sneaks) that uses a document extraction model to enable efficient and accurate shared AR annotation on smartphones.

Fuji Xerox Research Laboratory in Palo Alto, Research Intern
May 2018 - Aug 2018, Palo Alto, CA

- Researched the interaction effect of distance and touchless modality on mobile users.

Brown HCI Lab, Research Assistant
Aug 2016 - Present, Providence, RI

- Researched on adaptive free-hand AR interfaces, including system building, data analysis, and experimentation.
- Mentored over 10 graduate and undergraduate students for their research agenda.
- Open-sourced two systems with media exposure over 500,000 views.

MIT Media Lab, Visiting Student
Nov 2015 - Jun 2016, Cambridge, MA

- Programmed social VR applications that use brainwave signals for user attention and engagement in the VR environment.

UPenn xLab, Research Assistant
June 2015 - Oct 2015, Philadelphia, PA

- Programmed a web-based authoring tool for responsive IoT lighting and a visualization tool for a pressure-sensitive mat.

# 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 Gonsher, 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

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

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

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)

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