

# Max Collins, PhD



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## Education

### PHD | 2017-21 | UNIVERSITY OF CALIFORNIA IRVINE

- Informatics Ph.D. fully-funded EDGE fellow in Donald Bren School of Information and Computer Sciences
- Related coursework: Ubiquitous Computing, Human Centered Computing, Quantitative/Qualitative Research Methods, AR/VR, Prototyping
- Dissertation: <https://escholarship.org/uc/item/3x41x8mc>

### MS INFORMATICS | 2020 | UNIVERSITY OF CALIFORNIA IRVINE

- Focus on interaction design principles in AR for remote/local and individual/collaborative experiences

### BS | 2013-17 | UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

- Psychology, Informatics
- Presidential Scholarship, AAP Scholar
- Related coursework: Virtual Reality, Foundations of Data Science, Psych Research, Social Aspects of Information Technology
- Vision Lab RA
- Illinois Digital Ecologies & Learning Lab (IDEALL) RA
- Center for Innovation in Teaching & Learning (CITL) intern

## Skills & Abilities

### TECHNICAL

- Unity 3D, Unreal, ARKit, ARCore, ARFoundation, C#, Python, AR/VR, Prototyping (2D and in AR/VR), Research, UNIX, Java, WatchOS, Xcode, HTML/CSS, SQL, HCI, UX (quantitative + qualitative methods), Qualtrics, Adobe Premiere, After Effects, Figma

## Experience

### UX RESEARCHER | META (FACEBOOK) REALITY LABS | SPRING 2022- CURRENT

- Researching emerging (0-1) AR products
- Designing + building prototypes (Unity/c#) and experiments to inform product direction at a foundational level
- Helping organize org-wide efforts for more regular demo testing and research data collection

### RESEARCH SCIENTIST INTERN | META (FACEBOOK) REALITY LABS | FALL 2021- SPRING 2022

- Designed and executed generative and evaluative research around novel interaction and visualization techniques for AR/VR

### MAGIC LAB INTERN | PLAYSTATION (SONY INTERACTIVE ENTERTAINMENT) | SUMMER 2021

- Developed a game to showcase the utility of eye tracking using Unreal Engine, networked virtual environments, and eye trackers
- Won internal hackathon prize which led to patent filing

### UX RESEARCHER INTERN | META (FACEBOOK) | SUMMER 2020

- Developed and executed multi-stage research plan to ameliorate top user pain points in Messenger; delivered insights to cross-functional partners with actionable outcomes (strategy and design-level), ran design sprint resulting in mockups and designs with trajectory for future integration

### UX RESEARCHER INTERN | META (FACEBOOK/OCULUS) | SUMMER 2019

- Completed multiple research projects to provide foundational data as well as direct product-related insights to cross-functional partners using qualitative + quantitative methods and data analysis to enhance social experiences in VR

### EMPATHIC COMPUTING LAB RESEARCHER | EMPATHIC COMPUTING LAB | FALL 2020

- Developing and evaluating collaborative Mixed Reality (MR) applications with Mark Billinghurst's Empathic Computing Lab
- Using Unity 3D (C#) and various HCI evaluation techniques (mixed methods approach) to research the interfaces
- Published here: <https://dl.acm.org/doi/10.1145/3411763.3451546>

### NSF DREU INTERN | CARNEGIE MELLON UNIVERSITY: HCII, ARTICULAB | SUMMER 2017

- Worked on development of an embodied conversational agent (an intelligent virtual child) to engage in a collaborative tabletop game called *Outbreak*, and elicit curiosity from real children during the game play
- Project: SCIPR (Sensing Curiosity in Play and Responding) fosters curiosity in children to improve self-motivation and learning
- Performed lit review, observation, transcription, and behavior (verbal/nonverbal) coding to create finite state machine for AI agent; produced novel insights to iterate on design, frequently play-tested game iterations

### NSF REU RESEARCH INTERN | NYU: SOCIAL PERCEPTION, ACTION, & MOTIVATION LAB | SUMMER 2016

- Training in experimental research design, study design, facilitating research, behavioral statistics, and quantitative analysis (SPSS)
- Methods: eye tracking, psychophysiology, dyadic interactions, video analysis, observation, survey, interview
- Contributed to interdisciplinary and transformative research across multiple domains including emotion, health, relationships, jury decisions, politics, and others while maintaining a single intellectual focus on the study of motivated perception

### NSF REU RESEARCH INTERN | BLUE WATERS SUPERCOMPUTER NCSA | 2015-2016

- Received training in high performance computing, parallel computing, and research at Blue Waters Supercomputer
- Interviewed professors, scientists, and researchers to understand the needs in the field to create a meaningful experience
- Designed and developed an AR application, and a pipeline for visualizing large amounts of molecular data using Unity 3D and various programming/scripting languages to query large databases
- Publication (*Journal of Computational Science Education*): [www.jocse.org/articles/8/1/3/](http://www.jocse.org/articles/8/1/3/)
- Presentation: XSEDE (The Extreme Science and Engineering Discovery Environment) ECSS Symposium – June, 2019