

Education

- 2024–present **PhD, Computer Science**, *Brown University*, Providence, RI.
Advisor: Dr. Diana Freed | GPA: 4.00/4.00
- 2020–2024 **BS, Computer Science**, *University of Florida*, Gainesville, FL.
Advisors: Dr. Eakta Jain and Dr. Steven Weisberg | GPA: 3.98/4.00
Honors: Summa Cum Laude, University Honors Program

Publications

Peer-Reviewed

- 2023 Karina LaRubbio, Ethan Wilson, Sanjeev Koppal, Sophie Jörg, and Eakta Jain. Give me some room please! Personal space bubbles for safety and performance. In *2023 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)*, pages 897–898, Shanghai, China, March 2023. IEEE.
- 2022 Karina LaRubbio, Jeremiah Wright, Brendan David-John, Andreas Enqvist, and Eakta Jain. Who do you look like? - Gaze-based authentication for workers in VR. In *2022 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)*, pages 744–745, Christchurch, New Zealand, March 2022. IEEE.

Theses and Workshops

- 2025 Karina LaRubbio, Malcolm Grba, and Diana Freed. Navigating Privacy and Trust: AI Assistants as Social Support for Older Adults. In *Proceedings of the CHI 2025 Workshop on Technology Mediated Caregiving for Older Adults Aging in Place*, Yokohama, Japan, 2025.
- 2024 Karina LaRubbio and Eakta Jain. *Demographic Bias in Eye Movement Biometrics in VR for Users with Visual Impairments*. Undergraduate Honors Thesis, University of Florida, 2024.

Presentations

- 2025 **Karina LaRubbio**, Malcolm Grba, and Diana Freed, “Navigating Privacy and Trust: AI Assistants as Social Support for Older Adults,” CHI 2025 Workshop on Technology Mediated Caregiving for Older Adults Aging in Place, remote, April 2025.
- 2025 **Karina LaRubbio**, “Navigating Privacy and Safety with AI for Older Adults,” Annual Boston Security Usability Research Day, Tufts University, Boston, MA, April 2025.
- 2025 **Karina LaRubbio**, “AI Assistants as Social Support for Older Adults,” Tech & Society Reading Group, Brown University, Providence, RI, March 2025.
- 2024 **Karina LaRubbio** and Eakta Jain, “Gaze Based Authentication in Virtual Reality for Users with Visual Impairments,” University of Florida Undergraduate Research Symposium, Gainesville, FL, April 2024. (poster).
- 2023 **Karina LaRubbio**, Ethan Wilson, Sanjeev Koppal, Sophie Jörg, and Eakta Jain, “Give me some room please! Personal space bubbles for safety and performance,” University of Florida Undergraduate Research Symposium, Gainesville, FL, April 2023 (poster).
- 2023 **Karina LaRubbio**, Ethan Wilson, Sanjeev Koppal, Sophie Jörg, and Eakta Jain, “Give me some room please! Personal space bubbles for safety and performance,” IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW), Blacksburg, VA, March 2023 (poster).

- 2022 **Karina LaRubbio**, Jeremiah Wright, Brendan David-John, Andreas Enqvist, and Eakta Jain, "Who do you look like? Gaze-based authentication for workers in VR," University of Florida Undergraduate Research Symposium, Gainesville, FL, April 2022 (poster).
- 2022 **Karina LaRubbio**, Jeremiah Wright, Brendan David-John, Andreas Enqvist, and Eakta Jain, "Who do you look like? Gaze-based authentication for workers in VR," IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW), remote, March 2022 (poster).
- 2021 **Karina LaRubbio**, Max LoGalbo, Brendan David-John, Andreas Enqvist, and Eakta Jain, "Investigating Virtual Reality's Capability in the Future of Nuclear Reactor Training" University of Florida Undergraduate Research Symposium, Gainesville, FL, April 2021 (poster).

Research Experience

Graduate Researcher, Brown University

September 2024 – present ***Sociotechnical Systems and Wellbeing Research Lab, Computer Science.***

- Explored privacy, security, and safety challenges that older adults experience with technology through the design of participatory design workshops.
- Investigated school professionals' roles in supporting youth online safety and privacy through semi-structured interviews.

Undergraduate Researcher, University of Florida

January 2021 – May 2024 ***JainLab, Human-Centered Computing.***

- Demonstrated demographic inequities in biometric identification algorithms for eye movements.
- Interviewed participants with strabismus and amblyopia on their perceptions of gaze-based interaction in virtual reality. Collaborated on qualitative data analysis to propose inclusive design guidelines from user perspectives.
- Conceptualized and led an investigation on the impact of personal space boundaries on task performance and feelings of safety in virtual reality.
- Interpreted feedback from nuclear engineers to implement a VR training simulation in Unity. Streamlined a radial basis function network in Matlab to use gaze for authentication in varied task environments, achieving up to 82% accuracy.

January 2023 – December 2023 ***Spatial Cognition and Navigational Neuroscience Lab, Psychology.***

- Adapted virtual environments in Unity to study the psychology of spatial navigation.
- Guided experiment participants using PsychoPy and virtual reality with HTC Vive headsets.

Science Undergraduate Laboratory Intern (SULI), Oak Ridge National Laboratory

May – July 2023 ***Manufacturing Data Visualization.***

- Visualized data using Unity for HoloLens to improve operator awareness of manufacturing processes.
- Leveraged gaze tracking to allow extracting insights on operator behavior and visual information usage.

Leadership Experience

Center for Technological Responsibility, Reimagination, and Redesign, Brown University

January 2025 – present ***Socially Responsible Computing Handbook Accessibility Team Lead.***

- Led a team of undergraduate students to develop a curated handbook of accessibility-focused materials for use in computer science courses at Brown University

January 2025 – present ***Reading Group Co-Organizer.***

- Enhanced access to learning about sociotechnical research topics across campus
- Coordinated recruitment of PhD students from local universities including Brown University, MIT, and Northeastern University for a student-led sociotechnical seminar group to build community among early career researchers.

Dream Team Engineering, University of Florida

- September 2021 **Diabetes VR Team Captain.**
- May 2024 ○ Volunteered with pediatric endocrinologists at UF Health hospitals to create a VR game to enhance diabetes patient education.
 - Promoted to team captain. Guided a team of 5 peers through learning Unity with C# for Meta headsets.
- September 2022 **Executive Board Member.**
- May 2024 ○ Expanded to reach >200 undergraduates interested in volunteering to create biomedical technologies for UF Health hospitals and the surrounding community.

Peer Advisor, University of Florida

- January 2023 **International Center.**
- May 2024 ○ Guided prospective study abroad students to resources such as program information and financial aid.

Awards

- 2025 **Swearer Center for Public Service Engaged Research Mini-Grant**, Brown University
- 2023 – 2024 **CISE Cottmeyer Scholarship**, University of Florida
- 2023 – 2024 **University Scholars Program**, University of Florida
- 2021, 2022 **IEEE Bridge to VR Scholarship**, IEEE
- 2020 – 2024 **University Honors Program**, University of Florida
- 2020 – 2024 **University Research Scholars Program**, University of Florida
- 2020 **Presidential Scholarship**, University of Florida
- 2020 **Most Valuable Scholar Semifinalist**, Elks Foundation

Teaching

- August 2023 **Operating Systems**, University of Florida
- May 2024 Instructor: Dr. Alexandre Gomes de Siqueira
- January 2024 **Musical Storytelling with Taylor Swift**, University of Florida
- May 2024 Instructor: Melina Jiminez
- August 2022 **Programming Fundamentals 1**, University of Florida
- May 2023 Instructor: Lisha Zhou
- August 2021 **Research and Creativity**, University of Florida
- December 2021 Instructor: Dr. Anne Donnelly