

EMMA DROBINA

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EDUCATION

PhD Student in Human-Centered Computing

May 2023 (expected)

University of Florida, GPA: 4.00/4.00

Gainesville, FL

Bachelor of Science in Computer Science, Minor in Spanish

May 2018

University of South Carolina Honors College

Columbia, SC

Graduated summa cum laude, GPA: 3.95/4.00

SKILLS

- **Programming Languages:** Python, Java, C#, Angular, SQL, C++, HTML, CSS
- **Programs:** GitHub, Visual Studio, Eclipse, Spyder, RStudio, Matlab
- **Operating Systems:** Ubuntu, Windows 7-10, MacOS, iOS
- **Other:** Tensorflow, Keras, Excel, machine learning, technical & non-technical writing, Qualtrics, survey design, interviews, focus groups

RESEARCH EXPERIENCE

Human Experience Lab (HXR Lab)

Gainesville, FL

Graduate Research Assistant

August 2018 - present

Advisor: Dr. Juan Gilbert

- Began interdisciplinary research project analyzing predictive policing and fairness in machine learning
- Collaborated on a proposed book chapter addressing the issues of machine learning and racial bias
- Helped launch study on the public's familiarity with deepfakes and susceptibility to manipulated video
- Developed research project analyzing computer science students' knowledge of ethics & fairness in ML
- Collected data for research on the use of augmented reality on the Microsoft HoloLens and Kinect as a tool to teach exercises to physical therapy patients
- Designed and ran study on using augmented reality as a teaching tool to prevent distraction with a team
- Coded qualitative results from a survey about student perceptions of two online learning platforms for first-year computer science students

University of South Carolina ART Lab

Columbia, SC

Undergraduate Research Assistant

February 2015 – April 2018

Advisor: Dr. Jenay Beer

- Performed heuristic analysis of telepresence systems (e.g. Skype, Kubi, BEAM)
- Awarded Magellan research grant to study the use of robots in education
- Designed a study with Dr. Jenay Beer to evaluate human perceptions of a robot tutor's behavior, then independently collected, analyzed, and presented results at a school-wide research showcase

WORK EXPERIENCE

Arab American Institute (AAI)

Washington, DC

PhDX Fellow (Media Democracy Fund)

May – July 2019

Supervisor: Suher Adi

- Created resources and blog posts on current tech policy issues (including disinformation, scams, and cybersecurity) for distribution to AAI's stakeholders and partners
- Researched disinformation, differential privacy, and cybersecurity for permanent AAI staff and participated in tech policy discussions

Boeing

Charleston, SC

IT Intern (Airplane Systems Computing)

May – August 2015, May – August 2016

Supervisors: Jeremy Ledger & Yvette Whitfield

- Migrated databases from Access to SQL and rewrote websites to accommodate new connections
- Collaborated with fellow interns to write content for a game to start conversations about diversity

- Designed, developed, and built application using a combination of C# and SQL so that users could select people to be given access to a Boeing application
- Increased speed of a C# application used to import Excel documents to SQL Server by 30%
- Attended CompTIA Security+ training

CLASS PROJECTS

Effects of Misleading Explainable Systems on User Trust

Jan 2019–April 2019

Professor: Dr. Eakta Jain

- Designed study researching explainable AI and the effects of explanations on user trust in system labels
- Helped create survey to evaluate user’s sense of how much they believe the system to be accurate and implemented survey in Qualtrics

Tyto Online

October 2018–December 2018

Professor: Dr. Lisa Anthony

- Redesigned the user interface of Tyto Online, an educational massively multiplayer online game, as part of a team of students in collaboration with Immersed Games, a local game studio
- Created wireframes and prototypes throughout our design process and publicly showcased them to clients

Capstone Computing Project

August 2017 – May 2018

Professor: Dr. Jose Vidal

- Cooperatively created web application to connect students looking for research opportunities to professors for the Office of Undergraduate Research with a team of four other students
- Designed and programmed blog functionality for the web application in Angular
- Completed QA testing for another team of students

Critical Interactives: Ward One

January – April 2017, January – April 2018

Professors: Dr. Duncan Buell, Dr. Heidi Cooley

- Collaborated with a multidisciplinary group of students to design a geolocative, educational mobile app
- Implemented navigation between pages (semester one) and layout of content within a page, as well as connection to the database (semester two) as part of a small team of student developers

PUBLICATIONS & PRESENTATIONS

- Williams, R., Alikhademi, K., Drobina, E., Gilbert, J., & Sutor, T. (2019). Augmented Reality for Rehabilitative Therapy: Patient experiences and practitioner perspectives. *Proceedings of the HFES 2019 International Annual Meeting*.
- Drobina, E. (2019). Confronting bias in machine learning. Presentation given at the Human-Centered Computing International Summit Universidad el Bosque 2019, Digital.
- Williams, R., Waisome, J., McMullen, K., & Drobina, E. (2019). “The fallacy of objectivity: Leveraging situated knowledges to advance computing for social justice.” Workshop facilitated at 2019 ACM Richard Tapia Celebration of Diversity in Computing, San Diego, CA.
- Wu, X., Thomas, R., Drobina, E., Mitzner, T., & Beer, J. (2017). Telepresence heuristic evaluation for adults aging with mobility impairment. *Proceedings of the HFES 2017 International Annual Meeting*.
- Wu, X., Thomas, R., Drobina, E., Mitzner, T., & Beer, J. (2017). An evaluation of a telepresence robot: User testing among older adults with mobility impairment. In B. Mutlu, M. Tscheligi, A. Weiss, & J. E. Young (Eds.), *Proceedings of the Companion of the 2017 ACM/IEEE International Conference on Human-Robot Interaction* (pp. 325-326). New York, USA: Association of Computing Machinery.

HONORS & AWARDS

- Graduate School Preeminence Award
- Carolina Scholar – 1 of 20 in the Class of 2018
- Palmetto Fellows Scholar
- Phi Beta Kappa
- National Merit Scholar
- Magellan Grant Recipient

ACTIVITIES

- Member of Women in Science and Engineering (WiSE)
- Member of Emerging Leaders in Science Policy & Advocacy (ELISPA)