# Keith McNamara, Jr.

Ph.D. student in Human Centered Computing
University of Florida
• Phone: 410-845-8065
• E-Mail: kmcnamara1@ufl.edu


## Education

- Ph.D. student in Human Centered Computing, **University of Florida** — Sept 2018 – Present
- Bachelor of Science in Computer Science, **University of Maryland, Baltimore County** — Sept 2014 – May 2018

## Technical/Internship/Research Experience

**Graduate Research Assistant, under Dr. Juan Gilbert** — August 2018 - Present
*University of Florida – Computer and Information Science and Engineering Department*

- The Effects of Distraction on Information Retention in Augmented Reality Education
  - Conducted a study of distractions on information retention in education through an augmented reality platform
- The Effects of Native Language Consistency on Learners' Introduction to Block-Based Instructional Technologies
  - Conducted a study native language impacts on introductory performance to programming
- Should I Answer? Measuring User Responses to Anti-Robocall Indicators
  - Conducted user studies to evaluate user experience with spam calls
  - Tested a prototype application to gauge various experiences with different app designs
  - Performed statistical analysis on data collected to discuss results and visualize information

**Graduate Student** — September 2018 – Dec 2018
*University of Florida – Computer and Information Science and Engineering Department*

- Designed a virtual reality experience for museum attendees to learn about sea level rise in an exhibit for the University of Florida Museum of Natural History
  - Utilized the Unity Game Engine to design a virtual environment
  - Programmed Scripts add natural effects and user interaction

**Student researcher, under Dr. Marie desJardins** — Dec 2016 – May 2018
*University of Maryland, Baltimore County (UMBC) – Computer Science and Electrical Engineering Department- Maple Lab*

- Conducted independent research comparing results of MAXQ and RAMDP learning models for runtime, learning rates, and task completions Dec 2016 – May 2018
- Cooperatively facilitated a team to work on theoretical applications for AMDPs and POMDPs
- Led a project for development of a partially observable MDP (POMDP) learning domain called Rock Sample

  - Information hidden from the learning agent until interaction with parts of the domain
  - Project to be used to test with AMDP research
- Worked on creation of learning agent domains for Markov Decision Process (MDP) and Abstract MDP (AMDP)
- Participated in a team dedicated to furthering graduate work on concept formation

**Research assistant, group of Dr. Ivan Erill** 2013-2014
*UMBC – Department of Biological Sciences – Bioinformatics – Erill Lab*

- Conducted research utilizing algorithms to find transcription factor binding motifs
- Compared transcription factors in multiple organisms to find the binding

## Teaching Experience

- **Undergraduate Teaching Assistant** Sept 2017 – May 2018
  Served as a teaching assistant for Ethical Issue in Information Technology
  Graded papers and evaluated student papers related to topics being discussed in the class

## Awards/Recognitions

- Graduate Student Preeminence Award 2018
- UMBC Meyerhoff Scholars Program 2014
- Wyatt-Martin & Associates Scholarship 2014
- Mark Thomas Hopkins Memorial Scholarship 2014

## Interests

- **Artificial Intelligence.** My interests lie in agent learning and task completion. I have performed research in learning navigation-based domains, and now am looking toward observation-based learning. I want to apply this either to drone research or using AI in user-centered programs. For drones specifically, I am looking multi-agent systems like team-based task completion or adversarial interactions.
- **Human Computer Interaction.** I am interested user interaction with software systems and applications. I want to improve the overall effectiveness and efficiency of these systems by designing the applications to work well with various user groups. For example, if an interface is developed for an application, it can be adjusted to work with different user groups with relative ease.
- **Adaptive Interfaces.** Research and development of various interfaces for use in software or other program applications. Some of interest includes interfaces that can adapt to different user needs and capabilities. One current use for this is using brain-computer interfaces to test a user's interaction with different mediums and gauge levels of interaction. I hope to apply this to the drone research to allow a single user to work with multiple drone systems.

## Conferences

- Richard Tapia Diversity in Computing Conference September 2018

- ITSMF Conference June 2015

## References

Dr. Juan Gilbert
University of Florida
juan@ufl.edu

Dr. Marie desJardins
Simmons University
marie.desjardins@simmons.edu

Dr. Ivan Erill
University of Maryland, Baltimore County
erill@umbc.edu