BRIANNA K. RICHARDSON
301-305-9942 * richardsonb@ufl.edu

EDUCATION

University of Florida	**Gainesville, FL**
Ph.D., Human-Centered Computing, **GPA: 3.8**	May 2022

University of Maryland Baltimore County (UMBC)	**Baltimore, MD**
B.S., Bioinformatics & Computer Science, **GPA: 3.6**	May 2018

HONORS/AWARDS

Bridge to Doctorate Fellow	**Fall 2018 – Spring 2020**
Marc U*Star Scholar	**Fall 2016 – Spring 2018**
Meyerhoff Scholar	**Fall 2014 – Spring 2018**

SKILLS

Programming: MATLAB, Python, C/C++, R, Java, SQL, Perl, NASM assembly language
Applications: GitHub, Bitbucket, Android Studio
Operating Systems: Linux, OS, Windows, MacOS
Scripting: JavaScript, PHP, HTML, Bootstrap Frameworks

WORK EXPERIENCE

B&D Consulting	**Hagerstown, MD**
Block Chain Intern	June 2018– August 2018

- Contributed to a Hyperledger software for optimizing energy use in households
- Led a mini-project to create a hybrid web application for visitors to log in to the office

UMBC Computer Science Department	**Baltimore, MD**
Introduction to Computer Science Teacher Assistant	August 2017 – May 2018

- Led a discussion class, guiding computer science majors through the theoretical computer science, programming through Python, and using a cluster for the first time
- Worked with a team of TAs to create assignments, grade assignments, & lead office hours to assist students through lab, homework, and project assignments

Varsity Tutors	**Baltimore, MD**
Tutor	March 2017 – June 2018

- Mentored undergraduate and graduate students through Computer Science courses, providing supplemental instructions, exam preparation, & project assistance
- Prepared students to gain the best score possible on projects, exams, & additional assignments
- Worked with students both in-person and online to get tasks done quickly and efficiently

The Graduate School	**Baltimore, MD**
Front Desk Position	September 2015 – May 2018

- Professionally answered phone calls directed to the graduate school about UMBC graduate programs and the application process
- Utilized organization and multitasking skills to process incoming mail and file applications in the PeopleSoft system

VOLUNTEER EXPERIENCE

Gainesville High School (After-school teacher, volunteer)   **August 2019 – Present**
- Teach JavaScript programming to high school students as part of an after-school program
- Created a curriculum with lectures, in-class assignments, quizzes, and homework assignments

REACH (Assistant Director, volunteer)   **May 2015 – May 2018**
- Partnered with a female from an inner-Baltimore high school as a mentor and an advisor, giving advice about being both a minority and a female in the STEM and professional workplace
- Worked together with mentee on a scientific project about the effects of external stresses on pregnant fish, teaching the scientific method along the way

RESEARCH EXPERIENCE

University of Florida   **June 2018 – Present**
Computer and Information Science & Engineering Department (Research Assistant)
Advisor: Dr. Juan Gilbert
- Project 1: Creating a rubric for evaluating how culturally relevant education apps are in the current Google Play market
- Project 2: Assist with the creation of an Android mobile shopping assistant that advises the user with which product they should buy based on attributes of importance generated by the user

University of Maryland, Baltimore County   **August 2016 – April 2018**
Department of Biomedical Engineering (intern)
Advisor: Dr. Gregory Szeto
- Uses analytical techniques to normalize and interpret proteomic data from diseased mice with different treatments
- Project the techniques with the best results onto multiscale data to identify networks or biological processes influential in diseases and treatments
- Utilize a plethora of programs, including Treeview, Matlab, several packages in RStudio, and several statistical algorithms featured as add-ins on major applications.

Princeton University   **June 2015 – August 2017**
Lewis-Sigler Institute for Integrative Genomics (intern/employee)
Advisor: Dr. Anastasia Baryshnikova
- Contributed to the first compilation project involving the Saccharomyces Cerevisiae deletion collection and its use in phenotypic screening.
- Utilized different programming languages, including Python and Matlab, to import, interpret, and export data in a user-friendly format

Boston University   **June 2017- August 2017**
Department of Bioinformatics (intern)
Advisor: Gabriel Birzu, Rajita Menon, Dr. Kirill Korolev
- Created a pipeline to analyze RNASeq data from the microbiota of biopsy samples from patients with several different forms to Irritable Bowel Disease (IBS)
- Utilize machine learning to differentiate between diseases and identify outlying microbiota for successful pre-symptomatic disease prediction

College of Charleston   **June 2016 - August 2016**
Department of Computer Science (intern)
Advisor: Dr. Paul Anderson
- Analyzed RNA-seq data from 21 patients with NSCLC utilizing traditional, univariate expression analysis, such as DiffSplice and CuffDiff, and multivariate, statistical approaches such as, Elastic Net and Random Forest
- Utilized several different bioinformatics packages within R, including glmnet, randomforest, and CummeRbund; and also worked with packages in Python, including MISO

PRESENTATIONS, PROCEEDINGS, & PAPERS

Alikhademi, K., Richardson, B., Ross, K., Sung, J., Gilbert, J., Kwon, W.S., Chattaraman, V. (in press). AI-Based Technical Approach for Designing Mobile Decision Aids. *Human Factors*.

Alikhademi, K., Richardson, B., Martins, J., Chattaraman, V., Kwon, W.S., Gilbert, J. (in press). Systematic Evaluation of a Conversational Voice User Interface for Decision-making. *Lecture Notes in Artificial Intelligence (LNAI)*.

Sherman, I., Smarr, S., Smith, T., Richardson, B., Gilbert, J. (2018). Exploring Culturally Responsive Game Development. Abstract presented at the annual meeting of the International Conference on Urban Education, Nassau, Bahamas.

Alikhademi, K., Mack, N., Ross, K., Richardson, B., Chattaraman, V., Kwon, W.S., Gilbert, J. (2018). Implementing MODA: A Multi-Strategy, Mobile, Conversational Consumer Decision-Aid System. Paper presented at the annual meeting of the ACM Conference on Computer-Supported Cooperative Work and Social Computing, Jersey City, New Jersey.

Richardson, B., Birzu, G., Menon, R., Korolev, K. (2017). The Story in the Stomach: the Statistical Analysis of Gut Microbe Communities in Inflammatory Bowel Disease. Poster session presented at the annual meeting of the Annual Biomedical Research Conference for Minority Students, Phoenix, AZ.

Richardson, B., Baryshnikova, A. (2016). The Yeast Deletion Collection: Compilation, Distribution, and Analysis of the Yeast Phenome. Poster session presented at the annual meeting of the Annual Biomedical Research Conference for Minority Students, Tampa, FL.

CONFERENCES

- International Conference on Urban Education, ***Presenter***   November 2018
- Southern Regional Educational Board (SREB)'s Institute on Teaching and Mentoring Conference, ***travel awardee***   October 2018
- ACM Richard Tapia Celebration of Diversity in Computing Conference, ***travel awardee***   September 2018
- National Society of Blacks in Computing Conference, ***travel awardee***   June 2017
- Computational and Systems Neuroscience (Cosyne) Conference, ***travel awardee***   February 2017
- The Medical University of South Carolina (MUSC)'s Ernest E. Just Symposium   February 2015