# BRIANNA K. RICHARDSON
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## EDUCATION
**University of Florida**                                                                       **Gainesville, FL**
M.S., Computer Science                                                                         Dec 2020
Ph.D., Computer Science, **GPA: 3.7**                                              May 2023
Focus Area: Machine Learning

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

## HONORS/AWARDS
**Generation Next Scholar**                                                            **Spring 2020 – Spring 2022**
**Bridge to Doctorate Fellow**                                                       **Fall 2018 – Spring 2020**
**Marc U*Star Scholar**                                                                   **Fall 2016 – Spring 2018**
**Meyerhoff Scholar**                                                                       **Fall 2014 – Spring 2018**

## SKILLS
**Machine Learning/Data Science**: Data Visualization, Predictive Analysis, Clustering & Classification, Data analytics, Web Scraping, Data Mining, Linear/Logistic Regression, Neural Networks, Deep Learning, Graph Theory, Hyperparameter optimization

**Programming**: Python, R, MATLAB, C/C++, Java, NodeJS, SQL
**Applications**: GitHub, Bitbucket, Android Studio, MongoDB, Jupyter
**Scripting**: JavaScript, PHP, HTML, Bootstrap Frameworks

## RELEVANT EXPERIENCE
**Spotify**                                                                                           **June 2020 – August 2020**
**Machine Learning & Algorithmic Bias (Research Intern)**
Advisors: Jean Garcia-Gathright, Henriette Cramer, Samuel Way
- Collaborated across the company as an algorithmic bias consultant, assisting teams with fairness concerns in their differing applications of machine learning
- Exposed several teams and employees to new and emerging fairness AI technologies and methods for addressing algorithmic bias
- Conducted a user study measuring the usability and propensity for insight of fairness AI technologies in the workplace
- Utilized findings to conduct a complete fairness assessment on a new company-wide machine learning effort

**University of Florida**                                                                    **June 2018 – Present**
**Computer and Information Science & Engineering Department (Research Assistant)**
Advisor: Dr. Juan Gilbert
- **Sentiment & Trust in AI**: Collect sentiment on recent advances in Artificial Intelligence (AI) to determine if perspectives of AI and the social impact of AI differ across socio-economic, racial, gender, and/or geographical lines
- **Explainability in AI**: Test the impact user domain knowledge has on AI explainability by measuring the trust individuals have with a simulated machine learning tool that generates mostly incorrect responses with explanations
- **MoDA**: Assist with the creation, implementation, and testing of an in-store Android mobile shopping assistant that advises the user to the products that most meets their requests

- **Fairness in Explainability**: Evaluate Explainable & Interpretable AI's ability to measure metrics of fairness in ML classifiers; test how effective such tools are at identifying fairness with known bias classifiers

**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

## ORGANIZATIONS
**Alpha Epsilon Lambda Honor Society**          **Spring 2020 – Current**
**National Society of Black Engineers**          **Fall 2018 – Current**
**Black Graduate Student Organization,** E-board Member: Historian     **Fall 2018 – Current**

## PROCEEDINGS & PAPERS
Richardson, B., Prioleau, D., Alikhademi, K., Gilbert, J. E. (**In Press**). Public Accountability: Understanding Sentiments towards Artificial Intelligence across Dispositional Identities. Paper accepted to *IEEE 2021 International Symposium on Technology and Society*.

Richardson, B., Garcia-Gathright, J., Way, S. F., Thom, J., Cramer, H. 2021. Towards Fairness in Practice: A Practitioner-Oriented Rubric for Evaluating Fair ML Toolkits. In *CHI Conference on Human Factors in Computing Systems (CHI '21), May 8–13, 2021, Yokohama, Japan*. ACM, New York, NY, USA 13 Pages.

Roberts A.L., Richardson B., Alikhademi K., Drobina E., & Gilbert J.E. (2021) General Perspectives Toward the Impact of AI on Race and Society. *In: Pearson Jr. W., Reddy V. (eds) Social Justice and Education in the 21st Century. Diversity and Inclusion Research*. Springer, Cham.

Prioleau, D., Richardson, B., Drobina, E., Martin, J., Williams, R., Gilbert, J. E. 2021. How Students in Computing-Related Majors Distinguish Social Implications of Technology. In *Proceedings of the 52nd ACM Technical Symposium on Computer Science Education (SIGCSE '21)*. ACM, New York, NY, USA, 1013–1019.

Alikhademi, K., Drobina, E., Prioleau, D.. Richardson, B., Purves, D., Gilbert, J.E. 2021. A review of predictive policing from the perspective of fairness. *Artif Intell Law (2021)*.

Alikhademi, K., Richardson, B., Ross, K., Sung, J., Gilbert, J., Kwon, W.S., Chattaraman, V. (2019). AI-Based Technical Approach for Designing Mobile Decision Aids. In: Stephanidis C. (eds) HCI International 2019 - Posters. HCII 2019. *Communications in Computer and Information Science*, vol 1033, pp. 163–169.

Alikhademi, K., Richardson, B., Martins, J., Chattaraman, V., Kwon, W.S., Gilbert, J. (2019). Systematic Evaluation of a Conversational Voice User Interface for Decision-making. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 63, pp 413-416. 10.1177/1071181319631200.

## PRESENTATIONS
Prioleau, D and Richardson, B.. (2020). Technological Needs of the Black Collective. Presentation given at *ACM's 2020 Richard Tapia Celebration of Diversity in Computing Conference*, virtual.

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.