# Arshiya Mariam

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### **EDUCATION**

John Carroll University, University Heights, OH Bachelor of Science in Data Science Cumulative GPA: 3.89 Dean's List 7 semesters

August, 2015- January, 2019

### **PUBLICATIONS**

Co-Author: Assessment of Adverse Events and Their Ability to Discriminate Response to Anti-PD-1/PD-L1 Antibody Immunotherapy (2020). McLeod HL, **Mariam A**, Schveder KA, Rotroff DM. *J Clin Oncol*. 38(1):103-104. doi:10.1200/JCO.19.01712

Co-Author: Neoadjuvant chemoradiation improves oncologic outcomes in low and mid clinical T3N0 rectal cancers (2020). Lavryk OA, Manilich E, Valente MA, **Miriam A**, Gorgun E, Kalady M, Shawki S, Delaney C, Steele S. *Int J Colorectal Dis.* 35(1):77-84. doi:10.1007/s00384-019-03452-6

### **CONFERENCES**

Presenter: Relationship of Epistemic Beliefs and Sociopolitical Attitudes (2019). **Mariam A** and Yost J. *Midwestern Psychological Association*. Chicago, Illinois.

Co-Author: Multiple Primary Cancers: Associations & Network Link Analysis (2019). Manilich E, Mariam A, Zinda Z and Hanif S. Clinical Informatics Conference. Atlanta, Georgia.

Co-Author (Abstract): Neoadjuvant Chemoradiation Improves Oncological Outcomes in Middle and Lower cT3N0 Rectal Tumors (2018) Lavryk OA, Manilich E, **Mariam A**, Champagne BJ, Valente MA, Gorgun E, Kalady MF, Shawki S, Delaney CP, Steele SR. *Diseases of the Colon & Rectum (61)*.

#### **SKILLS**

Data Science Toolkit: R, Python, PySpark, Java, Jupyter, SPSS, Hadoop, Google Cloud Platform, Shiny, SynGlyphX, Regression, Survival Analysis, Data Mining, Machine Learning, Network Analysis Other: Android Studio, Eclipse

### **RESEARCH EXPERIENCE**

Cleveland Clinic Foundation | Cleveland, OH | Bioinformatician Technologist

March 2019 - Present

- As part of the Rotroff lab, research focuses on developing predictive signatures and drug response in complex diseases
- Projects include analyzing clinical, EHR and -omics data using statistical analysis and machine learning

# Undergraduate Research Experience

Cleveland Clinic Foundation | Cleveland, OH | <u>Data Science Project</u>

May 2017 - December 2018

- Analyzed complex cancer database in R, Python and PySpark on Google Cloud Platform
- Designed machine learning algorithms and interactive statistical web application
- Co-authored a paper that was presented at a national surgical conference
- Designed 3D visualization for cancer survival

Case Western Reserve University, School of Law | Cleveland, OH | Data Science Project

- Analyzed global terrorism data and developed interactive visualizations in R
- Investigated the trends of terrorism across different calendar type

# John Carroll University | University Heights, OH: Behavioral Psychology Lab | <u>Research Assistant</u>

January 2017 - May 2017

- Communicated and organized experiment sessions with participants
- Supervised experiment sessions
- Reviewed literature to gather data on commonly and seldom used statistics

# Neuroscience Lab | Research Assistant

August 2016 - December 2016

- Created documentation on Starr Life data collection application for incoming research assistants
- Conducted cognitive tests on, and physiological data from rats over the course of the experiment

#### HONORS AND AWARDS

Colleran Weaver Summer Research Fellowship, 2017 and 2018 Outstanding Undergraduate Research Award, 2018 and 2019 18th annual celebration of scholarship poster competition winner, 2019

### **OTHER EXPERIENCE**

John Carroll University | University Heights, OH:

Mathematics and Computer Science Department | <u>Data Science Teaching Assistant</u>

August 2018 - December 2018

- Configured a cloud based computational platform for hadoop and python applications
- Design and grade programming assignments in R

## Information Technology Services | Student Technician

September 2015 - December 2018

- Level 1 and level 2 client support and light system administration
- Trained entry level student workers in phone etiquette and troubleshooting reported issues
- Image and configure Windows 7 and 10 devices
- Manage student time sheets

# Mathematics and Computer Science Department | <u>Data Science Tutor</u>

August 2017 - May 2018

- Tutored undergraduate students majoring in data science and assisted with assignments and exam preparation
- Utilized R and Python to teach students machine learning algorithms