

Sultana Mubarika Rahman Chowdhury

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ACADEMIC BACKGROUND

- **Florida International University (FIU)** Miami, FL, USA
Ph.D. in Public Health (Biostatistics) August 2021 - Present
- **Florida International University (FIU)** Miami, FL, USA
MS in Statistics 2021
- **University of Chittagong** Chittagong, Bangladesh
MS in Statistics 2019
- **University of Chittagong** Chittagong, Bangladesh
B.Sc. in Statistics 2016

HONORS AND AWARDS

- **Posit::Conf Opportunity Scholar** 2023
- **Chittagong University Dean's Scholarship** for graduate students 2017

TECHNICAL SKILLS

- **Languages:** R, SAS
- **Statistical Software:** SPSS, STATA.
- **Reproducible Report:** Quarto, Markdown/Rmarkdown, LaTeX.
- **DevOps:** Git, Github.
- **Others:** Microsoft Office, Arc-GIS

PROFESSIONAL DEVELOPMENT

- **Advanced Tidymodels, Posit Conf. 2023** August 2023
- **Shiny in Production Tools and Techniques, Posit Conf 2023** August 2023
- **Instructor Training, The Research Centers in Minority Institutions (RCMI) Consortium** August 2022 - December 2022
- **FIU-RCMI Professional Development Series - Short Course in Systematic Reviews and Meta-Analysis** May 2021
- **Workshop on Arc GIS Application in Statistics, Department of Statistics, CU** May 2018

TEACHING EXPERIENCE

- **Biostatistics Department, Stempel College of Public Health, FIU** Miami, FL
Graduate Assistant August 2021 - Present
 - Conducted classes on regression techniques.
 - Conducted tutoring sessions for graduate-level Biostatistics II course.
 - Prepared exam and homework solution manuals and graded assignments.
- **The Research Centers in Minority Institutions (RCMI) Consortium** Miami, FL
Assistant Instructor February 2023 - April 2023
 - Worked as an assistant instructor for the 10-week national series on the R programming language, using a modified version of the R for Reproducible Scientific Analysis Data Carpentry curriculum.
- **Mathematics and Statistics Department, FIU** Miami, FL
Graduate Assistant August 2019 - July 2021
 - Held office hours and tutored course content through one-on-one and group discussions for undergraduate-level Statistics I, Statistics II, and Statistics for Behavioral Science courses.

- Developed skills to convey topics in various ways (visual, verbal, conceptual, etc.).

British Council

Chittagong, Bangladesh

Invigilator

Date not provided

- Guaranteed that all British Council-administered tests such as IELTS, Aptis, and school exams such as IGCSE, O and A Levels for Cambridge International, proceeded seamlessly on designated test days, ensuring that all assigned responsibilities and standards were fulfilled.

PROJECTS

• CTN-0094 Data Analysis Shiny Dashboard

Created a Shiny app that provides comprehensive insights through visualizations and machine learning techniques into the CTN-0094 clinical trials.

• Covid-19 Delta Variant Data

Applied advanced R programming skills in wrangling, cleaning, and extracting information from the CDC's open data repository related to the Delta variant of COVID-19 hospitalization trends for three Florida Counties: Miami-Dade, Palm Beach, and Broward.

• Heart Disease Prediction

Developed a model for heart disease prediction using stepwise logistic regression as part of a Data Analysis II course project.

• Predicting Loan Status Approval using Machine Learning

Developed and evaluated predictive models to automate loan status approvals in real-time using logistic regression, LDA, QDA, and random forest techniques. Implemented data preprocessing, model training, and validation, achieving high accuracy and effective borrower segmentation.

ACADEMIC COURSES

- Data Science and Machine Learning for Health Research(University of Miami)
- Advanced R computing for Health Science(FIU)
- Advance SAS and Sas computing for Health Science(FIU)
- Survival Data Analysis(FIU)
- Longitudinal Data Analysis(FIU)
- Graduate level Mathematical Statistics(FIU)
- Linear Models(FIU)

PUBLICATIONS AND AUTHORSHIP

- Manuscripts (Published)
 - Chowdhury, S. M. R., Zhou, M., Kuang, L., & Hu, N. (2023). Association between continuity of primary care with chronic conditions among patients in Guangdong Province, China. *The Open Public Health Journal*, 16.
 - Chowdhury, S. M. R., George, F., & Gulati, S. (2023). An application of logistic regression on Add Health data: Childhood abuse and anxiety. *Journal of Behavioral Education*, 8(3), 314-327.
 - George, F., Chowdhury, S. M. R., & Gulati, S. (2022). Application of logistic regression on heart disease data and a review of some standardization methods. *International Journal of Statistics and Probability*, 11(5).
 - Pebley, K., Farage, G., Hare, M. E., Bursac, Z., Andres, A., Chowdhury, S. M. R., & Krukowski, R. A. (2022). Changes in self-reported and accelerometer-measured physical activity among pregnant TRICARE beneficiaries. *BMC Public Health*, 22(1), 1-8.
 - Pérez-Muñoz, A., Horn, T. L., Graber, J., Chowdhury, S. M. R., Bursac, Z., & Krukowski, R. A. (2022). Recruitment strategies for a post-cessation weight management trial: A comparison of strategy cost-effectiveness and sample diversity. *Contemporary Clinical Trials Communications*, 30, 101037.
 - Poster Presentation
 - Chowdhury, S.M.R. (2022). Childhood abuse and anxiety: Logistic regression with Add Health survey data. Poster presented at the 2022 Graduate Student Appreciation Week, FIU, April 2022.
- Please find examples of scientific authorship here: [Google Scholar](#).