As a seasoned professional humanitarian worker with more than three years of health-related data management experience under various national and international organizations like Green Hill-Community Partners International, Food for the Hungry-UNHCR, Partners in Health & Development-Save the Children, Bangladesh, all are leading health research organizations in Bangladesh, I appreciate the need for further academic study to build the bridge between professional competency and research experience that form a life-long knowledge repository dedicated to addressing emerging health problems. My educational and professional objectives to pursue a **doctoral program of Public Health in Biostatistics** at **The Jiann-Ping Hsu College of Public Health,** **Georgia Southern University** have both short- and long-term objectives. In the short- -term, my goals are to sharpen my skills in Public Health and Biostatistics in order to apply those skills in original research. My long-term goal is to head a research laboratory studying Statistical design and methodological work and mentor the next generation of scientists to build up a group of statisticians, data scientists, and research professionals whose primary focus is on applied and collaborative work. I am greatly influenced by parental role models and leading professionals because their generosity and continuous learning encourage my desire to become a model of a **great Biostatistician**.

My love of health science began at my undergraduate level when I started my research journey. My first project was to measure the association between children's type of delivery and their disease in Bangladesh. I applied different statistical analyses on that and it was my first application of what I learned in my undergrad level. In addition, as I have a Second Major in Computer Science and Engineering, I feel attracted to different statistical programming like SAS, Stata, R, and Python. So, overall, after the first implication of my statistical knowledge, I became fond of statistical tools. Apart from that, working in public health with various diseases, which given me a charitable disposition toward man and all animals. Hence, my overarching research interests revolve around the realm of infectious diseases, non-communicable diseases, maternal, and child health. More specifically, I am interested in the analysis of genome sequence, gene variation and expression, analysis and prediction of gene and protein structure and function, prediction and detection of gene regulation networks, simulation environments for whole-cell modeling, complex modeling of gene regulatory dynamics and networks, and presentation and analysis of molecular pathways in order to understand gene-disease interactions, through Bioinformatics.

My success in applying my educational objectives with professional goals is demonstrated following graduation with a degree of Bachelor of Science in Statistics from the Shahjalal University of Science and Technology, Sylhet. I gained applied knowledge working in a research environment, beginning with my first undergraduate study, Principles of Statistics, Theory of Statistics, Sampling Techniques, Design and Analysis of Experiments, and Statistical Inference. However, my third-year professional curriculum formally introduced me to Regression Analysis and Statistical Computing. Where I can first apply my first two years of theoretical knowledge in practice. In those courses, I realized that by statistical data analysis, I can perform various statistical operations to identify trends, patterns, and insights. When I learned more about the importance of big data, machine learning, and time series analysis which have high demand in the 21st century, I felt love for those tools. This awareness has strengthened my skills and knowledge in academic and professional service. During my fourth year and the MS program, I learned more about the application of Statistical tools in the Biostatistics and Epidemiology course. During my MS program, I started to work on a project called “Cesarean Delivery and Early Childhood Diseases in Bangladesh: An Analysis of Demographic and Health Survey (BDHS) and Multiple Indicator Cluster Survey (MICS)” as a part of my coursework, later on it was published on PLOS ONE. While these general studies expected to resolve some community problems, I sought to expand my focus to a wider span of health problems relating to infectious diseases that could help prevent and bring solutions to emerging health problems.

My educational experience is the impetus for several fortunate opportunities to garner first-hand knowledge of the daily challenges and successes of a research scientist. While presently employed in Humanitarian Response as a Monitoring and Evaluation Officer (Health), I was appointed to work on a large-scale project with the under the leadership of the Civil Surgeon, the Ministry of Health and Family Welfare Coordination Cell (MoHFW CC) and the Refugee Relief and Repatriation Commissioner (RRRC), the Health Sector coordinates efforts from actors on the ground, camp management, government and across sectors to achieve the best possible health outcomes among the affected populations. As a humanitarian worker, I was actively involved with the Rohingya Refugee/Forcibly Displaced Myanmar Nationals (FDMN) Response Program via research recruitment and collaboration for data analysis. The program path was not always smooth, but I was instrumental in driving the program forward by implementing four strategies i) advocacy, communication, and social mobilization, ii) providing technical support to the program team, iii) capacity building in quality service, and iv) data collection management and reports. Working in Humanitarian Response gave me the confidence that I can produce solutions on my own.

My current project is titled “Community Health, Water Sanitation & Hygiene, Health Systems Support & Health Post for FDMN and Host Community Population”. The health objectives according to Joint Response Plan 2022: 1. Support equitable access to essential primary and secondary healthcare services for Rohingya refugees/FDMN and the host community. 2. Prepare for, prevent, and respond to outbreaks of communicable disease and other health-related hazards, including for periods of increased risk during the monsoon and cyclone seasons. 3. Promote health and well-being at individual and community level. I enjoyed every aspect of the projects, particularly the opportunity to take part in cutting-edge projects and explore ideas with my peers and seniors.

Although my working experience is based on the Rohingya Response, I realize that while I enjoy carrying out my routine activities, there is still room to advance my knowledge which would, in turn, open up more possibilities for personal satisfaction and professional rewards. During this time, I voluntarily worked and published more than 30 publications in reputed journals related to public health. I worked on infectious diseases during the COVID-19 pandemic. Some of my COVID-19-related manuscripts are 1) The Global Health Security index and Joint External Evaluation score for health preparedness are not correlated with countries’ COVID-19 detection response time and mortality outcome, 2) The global case-fatality rate of COVID-19 has been declining since May 2020, and 3) The disproportionate case-fatality ratio of COVID-19 between top vaccinated countries and the rest of the world, were published in Epidemiology & Infection, The American Society of Tropical Medicine and Hygiene, and IJID Regions, respectively. In addition, related to the ongoing devastating Dengue outbreak in Bangladesh (2022-2023), I published and still working on several related publications. Among them, 1) The 2022 dengue outbreak in Bangladesh: hypotheses for the late resurgence of cases and fatalities, 2) Two Decades of Endemic Dengue in Bangladesh (2000-2022): Trends, Seasonality, and impact of Temperature and Rainfall Patterns on transmission dynamics (in review), 3) Bangladesh’s 2023 Dengue outbreak – age/gender-related disparity in morbidity and mortality and geographic variability of epidemic burdens, which published/in review on Journal of Medical Entomology, Journal of Medical Entomology, and International Journal of Infectious Diseases, respectively. However, I also published a manuscript on non-communicable diseases, childhood diseases, early childhood development, maternal health, inhouse environment, groundwater quality, and meteorological factors.

Pursuing my Ph.D. at **Georgia Southern University** will allow me to be an Independent Scientist in my home country, tackling public health applications through Biostatistics. I look forward to interacting with Dr. Jingjing Yin, whose research directions are aligned with my own. I am excited about the prospect of working under Dr. Yin because of the way that she combines public health and Biostatistics to in-depth understanding of the many associations. The way that Yin spans both basic science and the field of Biostatistics is a model that I would like to follow in my own team one day, after receiving the basic Biostatistics and Epidemiology experience from BSc, MS, and research work. The opportunity to interact with other faculty, such as Professor Chun Hai (Isaac) Fung and Dr. Logan Cowan, also piques my interest in Epidemiology. It would be great to learn more about the determinants, occurrence, and distribution of health and disease from their experiment. Together, these faculty will provide a strong background I desire to shape my research leadership objectives. Coupled with my critical thinking skills developed from my own knowledge and experience, I am up to the challenge of a **Georgia Southern University** education.

Thank you for your consideration of my application.