

2200 Old Largo Rd
Upper Marlboro, MD 20774

Date

Company Address

To Whom It May Concern,

I'm grateful for the opportunity to apply for the research program at the University of Maryland College Park, which I learned about from your interest email. This position aligns with my interest in conducting independent research in bioinformatics under experienced professionals. As a Biology major at the University of Maryland, I have excelled in courses such as molecular biology, microbiology, and human anatomy and physiology and earned a 4.0 GPA. This background, along with other experiences, has prepared me to understand the theory behind the practical application in a research lab.

My most relevant experience is my current role as a lab assistant in the Entomology Department at the University of Maryland. At my job, I've gained hands-on experience with executing techniques such as gel electrophoresis, polymerase chain reaction, and RNA/DNA extraction. This exposure has made me more adept at performing experiments, but I would benefit from the chance to improve my skills. I've also recently got a Microsoft Azure AI Fundamentals certification, which has equipped me with a solid foundation in artificial intelligence (AI) concepts that can help me develop my research project using AI for biological data. My tenacity to work towards this skill set shows my initiative to control my learning in any scenario, including the independent research I would conduct under the MARC program. Through these lab skills and AI certification, I've demonstrated competency to comprehend new material, and these would be beneficial to my position as a MARC researcher as I want to join a more technical lab.

Just as I could contribute to this program's success through my previous experience and passion, this program also provides multiple accessible resources that I need to fulfill my plan of getting a Ph.D. Obtaining higher education is invaluable to me to contribute to a more efficient workforce with graduate degrees as an ambitious African-American woman. The advancement of underrepresented groups in STEM is essential because it encourages younger minorities to pursue their dreams and provides diverse perspectives in STEM. Additionally, I've learned through my previous laboratory experience with mosquitos as disease vectors that I want to use research to positively impact society, and securing a Ph.D. would bring me closer to that reality. The unique benefits of this program that I would utilize fully are the ability to explore labs during the fall 2023 semester and the access to NIH and UMD professionals in computational biology and bioinformatics. As someone with diverse interests, the opportunity to immerse myself in two of my preferred labs is necessary to decide the best lab for my future research based on my experience. I also aspire to maintain professional connections that can provide personalized advice on how to navigate a growing field of research like bioinformatics and insight into their unique backgrounds. Thank you for considering my application, and I can be reached at makem27@terpmail.umd.edu for further information.

Sincerely,
Michelle Akem
makem27@terpmail.umd.edu