

STATEMENT OF PURPOSE (SOP) - MATTHEW UTTL.

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The world could become a better place if we endeavor to take cognizance of events, in terms of garnering accurate data of proceedings long before they culminate into impromptu catastrophic uprisings, for instance: the long protracted covid19 epidemic which no one saw coming, the dreaded flurry of hurricane adversity which often springs up when least expected, etc, and making profound predictions accompanied with preventive measures. My penchant for being able to make futuristic projections which could ensure the universe is never caught up in any measure of disaster spurred my interest in pursuing a second degree in computer science as I intend to channel my programming and mathematical modeling acumen coupled with my anticipatory graduate major in **“Big Data Analytics”**, plus my unflinching drive for discoveries, innovation and improvement in the quality of life through research, in ensuring that the universe attains a realm of disaster free abode.

I hold a bachelor’s degree with a second class upper division (3.79 out of 5.0 CGPA) in mathematics and computer science (double honors) from the National Open University of Nigeria. My bachelor thesis was focused on the application of linear programming in profit maximization wherein I observed certain decision variables – say “n” choice variables and “m” constraints whilst defining my objective functions and took cognitive data of corresponding constraints which represented a set of conditions which my end conclusion had to justify, such as available technical coefficients, skilled labour, production and raw materials, as I kept iterating through the first and subsequent solutions, until I got through to the best possible solution.

During my bachelor program, I took courses in and outside the field of mathematics & computer science which culminate into the knowledge set requisite for a successful career in computer science and my dream Big Data Analytics such as: programming and algorithms, numerical analysis, real analysis, linear algebra, calculus, statistics and probability distribution, mathematical methods, data structures, operations research, artificial intelligence, just to name a few. I also acquired practical knowledge of operations research while I did my project.

After my bachelor program, I had the opportunity to work as a data and business analyst at a cosmetics conglomerate, Yinmide Global Limited, Lagos, Nigeria. My responsibilities included conducting daily business analysis of various cosmetics product lines, crafting out opportunities, identifying problems, modeling possible solutions, and often made rapt analytical deductions using tools like python, numpy,

pandas and matplotlib. This experience so far has fortified my aptitude at making critical decisions at lining up capital and resource allotment with corresponding business budget.

After that, I had the opportunity to work at Terimad limited, Lagos, Nigeria where I functioned as a fullstack web developer using javascript stack technologies such as React Js on the client side and Node Js runtime integrated with postgresql database on the server side of development.

I am passionate about research and teaching as I periodically engage mentoring new undergraduates in their quest for distinction personified academic success, especially through the seemingly more difficult areas of mathematics.

These aforementioned experiences have reinforced my resolve to stay allied with academics and enhanced my interest in research and teaching profession. My long term goal is targeted at becoming a professor and an expert in the field of big data analytics through conducting independent research, while I also pave the path for other underrepresented minority students, like myself, to thrive in STEM and contribute to humanity.

My curiosity to know more about data science as it applies to making profound predictions through big data analytics and machine learning motivated me to apply to your university for my graduate study. I can't over-emphasize well enough on the glamorous reputation of the University of Alabama for its cutting-edge and innovative research, diverse community and excellent science faculty as I relish a beautiful dream come true if given the chance to be part of your great institution.

I am innovative and intellectually curious, purpose driven and possess leadership skills as not only have I served and lead as an inventory manager where I coordinated the supply and delivery of multifarious brands of products whilst ensuring that my subordinates did not leave anything to chance, but also functioned as a team lead at my twin aforementioned jobs respectively.

I've also lead the youth in my community on a tech initiative to seek a life line through the diverse career opportunities in technology and innovation, rather than allowing themselves get caught up in the frustration of not landing jobs especially given the meager opportunities which the work force numerically outweighs by far.

I also have excellent communication and writing skills as those helped in my seminar presentation on the topic: "internet of things" at undergraduate level and conferences attended thus far. My oral skills also aided my performance at my recent IELTS examination wherein I had a score of "8" on my speaking test.

I identify as a minority and a first generational scientist as I look forward to being part of your great university which is at the forefront of equality, diversity and inclusion. I am confident that I possess the necessary technical skills in mathematics, algorithms, data analysis using python, programming skills, leadership, and other soft skills, crucial to succeeding at graduate school as I look forward to contributing my own quota to the research and development of your reputable department and university.

Thank you for your anticipated consideration.