I can remember a lot of things; growing up in a single parent family, but one thing was certain to be a priority above all, Education. Excellence was rewarded with recognition; occasional slip-ups were sanctioned with self-reflection talks and remedial classes from home. One very memorable recognition ritual at home was the “Excellence wall”, a symbolic white board in my family home in Kilimanjaro where all academic achievements were recorded. Back then, it was just another board that needed to be filled. However, reflecting on it now, it is clear that its influence over my perception of education is exceptionally vivid. It is my belief that my mother was aiming at building: A respect for knowledge, motivations for excellence and the desire to succeed.

However, the biggest takeaway from family rituals such as these is that the access to education afforded to us is a privilege that I do not take for granted. I started primary education at Huruma primary school (2007-2010) and Kagera primary school (2010- 2013), where after my National exams was awarded as the Overall First best performance in the Ukerewe District. I later progressed to St Mary’s Seminary School secondary (2014-2017) for my lower Secondary education and later joined Mzumbe secondary school (2018-2020) for advanced secondary education. Throughout my education journey I was selected into government special schools that enroll students with outstanding performance from different regions all over the country. The opportunity to study in these schools saw me being placed in a diversity of talented minds and abilities which after completion, has left me with a sense of cooperation and brotherhood that I believe would have not been found anywhere else. Furthermore, engaging in extracurricular club activities enriched my high school life. It built a sense of community inclusion and a sensitivity to community needs. I participated in three clubs: United Nations Clubs Tanzania Network (UNCTN), Mzumbe English Society (MESO) and Computer club.

I applied to the University of Dar es Salaam and got accepted into their Computer Engineering & IT program. My interest has always been merging Computer science, specifically Data Science with the Healthcare Sector. In March 2021, I enrolled in an Arduino programming for IoT industrial application course hosted by University of Dar es Salaam ICT Student Society (UISS). The course was a step towards my interests in research work and consequently merging the two fields. Arduino is a tool, both hardware and software, that is designed to create interactive objects or environments. What this means is that the program and its hardware can be used for simple applications such as traffic lights and much more lifesaving applications such as heart monitor LED systems. These connections can also be connected to the internet and that’s where the applications of the program become an interest in the field of Data Science. Through applications of IoT especially in healthcare systems, a wide range of possibilities that have never been experienced before are made possible to collect and analyze patients’ data records, something that has improved treatments and monitoring of threatening health conditions like blood pressure.

After the course, a few colleagues and I decided to use the skills obtained from the course to conduct a project that automates vehicle's speed to obey speed limits, with the hope that it will help to reduce the number of road accidents caused by violation of speed limits. The motivation to conduct the project came after reviews were made on a number of prior researches and data collected on road accidents in Tanzania which clearly show that casualties resulted from accidents unnecessarily consume resources in the healthcare systems. On a large scale the project would require advanced knowledge on embedded systems, wireless communication, Artificial Intelligence as well as automotive electronic systems but we managed to make a very simple elaborative prototype. The project was submitted to the department head for review and was nominated to exhibit during the University-wide research and Innovation week. We got a chance to participate and showcase our project in the exhibition, a ground that was very beneficial to me in terms of ideas for project modification, exposure, acknowledgment, and cementing my interest in innovative socio-scientific research. Our project was recognized among the few that were sustainable and socially relevant.

In light of this recognition, we were invited to participate as honorary founding members in the launching of ICREATE TANZANIA, an Innovation challenge under the Digital Fortune Cooperation where we also showcased the project and were recognized by Certificates. In August this year, the Tanzania Commission for Science and Technology (COSTECH) announced a three-day boot camp, sponsored by Southern Africa Innovation Support Program (SAIS), intended to empower start-up innovators. Around 400 innovation ideas were submitted, only 26 start-up projects were selected to attend the Boot camp, our project was one among the only two student-created projects selected for the program.

Throughout the training, we learned important entrepreneurial skills such as creating business models for start-ups (branding & marketing) and the art of pitching. After completion of my first-year studies, I applied and got selected to do my Practical training program at Youth For Children Innovation hub, founded by UNICEF in cooperation with the University of Dar es Salaam. The hub is a research specific center that caters for challenges analyzed by UNICEF that are faced by most societies in Tanzania, most of which fall under the health category including maternal & neonatal health, malnutrition, outreach health services, HIV/AIDS monitoring, and WASH services.

I currently work on two projects; One with collaboration with my team we are developing the system that will be able to recruit new members in the Y4C innovation hub and automatically provide them with community-based challenges to perform. Two, how we can create awareness on the issues of Violence Against Children and device the solution to fight against it in Tanzania.

As the global community strives to construct plans for science, technology & innovations, I believe that joining these movements as the computer scientist will generate a very huge impact.