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| My Journey: A Computer Science Student’s Story |
| From Early Interests to Final Year Triumphs |

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Contents

[1. Introduction 1](#_Toc170678884)

[2. Early Life and Background 2](#_Toc170678885)

[3 Education 4](#_Toc170678886)

[3.1 Primary School 4](#_Toc170678887)

[3.2 Secondary School 5](#_Toc170678888)

[4. Discovering Computer Science 6](#_Toc170678889)

[5 University Life 8](#_Toc170678890)

[5.1 Freshman Year 8](#_Toc170678891)

[5.2 Sophomore Year 9](#_Toc170678892)

[5.3 Junior Year 10](#_Toc170678893)

[5.4 Senior Year 11](#_Toc170678894)

[6. Projects and Achievements 13](#_Toc170678895)

[7. Challenges and Overcoming Them 14](#_Toc170678896)

[8. Internships and Work Experience 15](#_Toc170678897)

[9. Personal Growth and Extracurricular Activities 16](#_Toc170678898)

[Future Aspirations 17](#_Toc170678899)

[\*\*Short-term Goals:\*\* 18](#_Toc170678900)

[\*\*Long-term Goals:\*\* 18](#_Toc170678901)

[Conclusion 19](#_Toc170678902)

[Acknowledgments 20](#_Toc170678903)

# 1. Introduction

My name is Fredrick Maina, and I am a 24-year-old male currently pursuing a Bachelor of Science in Computer Science at Dedan Kimathi University of Technology. As I navigate the final year of my studies, I reflect on a journey marked by resilience, determination, and an unwavering passion for technology. I currently reside in Nyeri, a town that has become a significant part of my life, but my story begins in the vibrant town of Sagana, where I was born into a loving and supportive family.

Growing up, I was fortunate to have parents who were not only dedicated to their business ventures but also deeply committed to providing for all my needs. Their hard work and dedication laid a strong foundation for my early development. My educational journey began at Princess Children Center, a place filled with the innocent joys of childhood and the first steps into the world of learning. It was here that my curiosity and love for knowledge were first kindled.

Upon graduating from preschool, I transitioned to Multiple Academy for my primary education. Those early school years were filled with the excitement of new discoveries and the joy of making friends. However, life had more changes in store for us. When I was in class three, our family relocated to Nanyuki, a picturesque town that would be our home for the next three years. In Nanyuki, I attended Neema Academy, where I continued to build on my academic foundation and form new friendships.

After three years in Nanyuki, our journey brought us to Juja, a town that holds many memories of my formative years. I completed my primary education at Jomo Kenyatta Primary School, a place where I began to see the world through a broader lens and dream about the future.

High school presented its own set of challenges and opportunities. I initially attended Kiamutugu Secondary School, but an unexpected illness during this period drastically changed my life. The illness left me with a debilitating mark, affecting my mobility and necessitating the use of crutches. This significant setback tested my resilience and strength in ways I had never imagined. However, with my family's unwavering support and determination to succeed, I overcame these challenges and eventually graduated from Juja Secondary School.

As I look back on my journey, I am reminded of the many obstacles I have faced and the triumphs that have defined my path. This autobiography is a reflection of my experiences, from the early days in Sagana to my current status as a final-year computer science student. It is a story of perseverance, growth, and the relentless pursuit of my dreams. Through these pages, I hope to share the lessons I have learned and the moments that have shaped me into the person I am today.

# 2. Early Life and Background

I was born into a young family still finding their way in the world. My father, Martin Mburu, and my mother, Jacinta Wambui, welcomed me warmly, showering me with the love and care that every parent should give their child. My childhood was filled with a series of dramatic events that shaped who I am today. My mother, a strict but loving teacher, ensured I stayed on the right path, instilling in me values that would guide me through life. My father was a towering figure in my early years, a strong tree I could lean on, providing me with shade and protection from the harsh realities of the world.

One of my most vivid memories from childhood is of a day at my father's workplace. My father was not present at the time, and I was with my mother. Suddenly, people who had been pretending to be customers revealed their true intentions and robbed my mother of her earnings. The shock of that experience was profound, shattering my naive perception that the world was always sunshine and roses. It was a harsh lesson about the realities of life and the importance of resilience.

Another significant memory is my first day of school. The idea of being left alone in an unfamiliar place filled me with dread. I clung to my mother, crying until there were no tears left. Despite my fears, my parents' unwavering support made all the difference. My mother, in particular, played a crucial role in my early education. She would sit with me, helping me with my assignments and patiently explaining topics I found difficult to grasp. Her dedication to my learning laid a strong foundation for my academic journey.

School soon became a place where I not only learned academically but also began to understand the importance of socializing and making friends. I started my educational journey at Princess Children Center, where I learned the basics and began to develop a love for knowledge. The transition from home to school was challenging, but it was also an exciting adventure that opened up new worlds for me.

After preschool, I moved on to Multiple Academy for my primary education. This period was marked by a blend of learning and play, where I started to explore different subjects and discover my interests. However, life took a significant turn when my family relocated to Nanyuki when I was in class three. Adapting to a new town and a new school, Neema Academy, was a challenging yet enriching experience. The beautiful landscapes of Nanyuki and the supportive environment of Neema Academy helped me grow both academically and personally.

Three years later, we moved to Juja, where I completed my primary education at Jomo Kenyatta Primary School. Juja became a significant chapter in my life, filled with academic achievements and deeper social connections. The supportive teachers and vibrant school community played a crucial role in my development, preparing me for the next stages of my educational journey.

Reflecting on my early life and background, I am grateful for the experiences that have shaped me. The love and guidance of my parents, the lessons learned from both joyful and challenging moments, and the various environments I adapted to have all contributed to the person I am today. These early years laid the foundation for my resilience and determination, qualities that have been crucial in my journey through life and education.

# 3 Education

## 3.1 Primary School

In the early years of my primary school journey, I was deeply passionate about academics. I had a competitive spirit and consistently aimed to be at the top of my class after exams, which fueled my love for learning even more. However, one particular incident during my time in class two stands out vividly in my memory. After an exam, the results were announced, and to my surprise, I found out that I had placed third in class. This unexpected outcome left me feeling defeated and envious of my friends who had outperformed me. I had always prided myself on my academic excellence, so this setback hit me hard, and I remember shedding tears that day.

But this experience taught me a valuable lesson early on — it's okay not to always come first as long as I give my best effort. It was a pivotal moment that shaped my perspective on success and failure, teaching me resilience and the importance of continuous improvement. I realized that there will always be someone more skilled or talented in any given field, and instead of being discouraged, I took this as motivation to strive harder.

Outside of academics, I had several hobbies that brought joy and excitement to my school days. I loved playing football and running, activities that not only kept me active but also fostered friendships and teamwork. Play fighting was another favorite pastime, filled with laughter and camaraderie among friends. However, like many young children, I also engaged in some less commendable activities. One memorable escapade involved my friend Ridge and me sneaking into the school garden to steal onions, which we planned to add to our Githeri for extra flavor. It was a daring adventure that added a touch of mischief to our school days.

Not all my childhood memories are filled with lighthearted mischief, though. There was an incident where a play fight with a friend ended in my glasses being broken. That evening, my father imparted a lesson that remains etched in my memory. It was a stern reminder of responsibility and the consequences of reckless behavior.

Among the subjects taught in school, science stood out as my favorite. Mr. Kinyanjui, our science teacher at Jomo Kenyatta Primary School, played a significant role in nurturing my love for the subject. His engaging lessons and passion for science inspired me to delve deeper into the mysteries of the natural world. Mr. Kinyanjui became not just a teacher but a mentor whom I admired and looked up to.

One of the highlights of my primary school life was the school tours we embarked on. These trips were eagerly anticipated adventures that brought learning beyond the classroom. Visiting places like the Giraffe Center left a lasting impression on me, allowing me to witness the beauty and majesty of these magnificent animals up close. Another memorable visit was to the Nairobi Orphanage, where my fascination with wild animals first took root. These experiences ignited a lifelong love for wildlife and conservation, shaping my interests and aspirations.

## 3.2 Secondary School

After passing my KCPE exams with commendable marks, I found myself at a crossroads regarding my secondary education. Although I was accepted to Juja Secondary School, it wasn't my preferred choice. My mother and I set out to explore other options, a challenging endeavor as my father had moved to Narok to establish a new business. During this period, financial constraints weighed heavily on us. My mother struggled to gather the funds needed for my school fees, but with the collective support of my aunts and my father's eventual contribution, I was able to continue my education.

My high school journey began at Kiamutugu Secondary School. As a Form 1 and Form 2 student, I was required to study 12 subjects, a demanding schedule that took some getting used to. Boarding school was a new experience for me, marking the first time I was away from my parents for an extended period. Initially, I found life at Kiamutugu Secondary School challenging, but I gradually adapted and even came to appreciate the newfound freedom. My social nature helped me make friends quickly, and I often entertained them with crazy and funny stories, creating a close-knit circle that made the transition easier.

The daily routine at Kiamutugu was rigorous. We woke up at 5:30 am and attended classes until 10:00 pm. Despite the demanding schedule, I thrived academically, particularly in chemistry. My love for chemistry was immediate and profound, and I excelled in the subject, often outperforming my classmates. My chemistry teacher recognized my enthusiasm and curiosity, frequently engaging with my endless questions and requests for further clarification. This teacher-student relationship further fueled my passion for the subject.

Fridays were a highlight of my week, thanks to the evening entertainment sessions where we listened to music and watched movies. These moments provided a much-needed break from our hectic schedules and allowed us to relax and bond with our peers. In addition to academics, I also tried my hand at sports, experimenting with hockey before deciding it wasn't for me and returning to my original passion for running.

However, my high school journey took a drastic turn during my second term in Form 2. I fell seriously ill and required an operation that left me unable to use my legs as I once did. This period was incredibly challenging, and I had to stay at home for three years to recuperate. The experience was isolating and tested my resilience, but it also strengthened my resolve to continue my education despite the obstacles.

After my recovery, I joined Juja Secondary School, where I rediscovered my passion for learning. Mathematics, a subject I had previously found challenging, became a newfound love, thanks to my teacher Mr. Robert. His teaching methods made complex concepts understandable, and his encouragement motivated me to excel. My passion for chemistry persisted, and Mrs. Karanja, my chemistry teacher, played a crucial role in nurturing it. She provided additional tutoring and exercises that deepened my understanding and appreciation of the subject.

Despite the physical limitations imposed by my illness, which now required me to use crutches for mobility, I remained determined to succeed. I focused on my studies and channeled my energy into academic excellence. The loss of my ability to run was a significant blow, but I adapted and found new ways to cope with the changes in my life.

Graduating from Juja Secondary School with good grades was a testament to my resilience and determination. The challenges I faced during my high school years, from financial difficulties to serious illness, shaped my character and instilled in me a profound appreciation for education. These experiences taught me the importance of perseverance and adaptability, lessons that continue to guide me as I pursue my dreams and aspirations.

# 4. Discovering Computer Science

Upon graduating from high school, I found myself at a crossroads regarding my future career. I harbored a deep passion for teaching, inspired by my exceptional chemistry and math teachers, who had ignited in me a desire to share knowledge. This passion was further fueled by my own experiences helping classmates understand challenging concepts. However, my aspirations extended beyond teaching. I was also drawn to the idea of becoming a chemical engineer, driven by my love for chemistry. Unfortunately, the prospects for pursuing such a specialized course in Kenya were limited. The lack of robust programs in chemical engineering and the uncertain job market made me hesitant to follow that path.

I vividly remember discussing my ambitions with friends, only to be met with surprise. Many of them had not considered teaching as a viable career, largely due to the low pay that teachers received in our country. They preferred careers that promised quick financial gains. Despite my friends' skepticism, I sought advice from my cousin, a graduate of a renowned university. He suggested several courses, but it was computer science that truly stood out to me.

My initial attraction to computer science was somewhat enigmatic. Perhaps it was the influence of movies I had watched, where characters became successful by developing innovative software, or the allure of the "cool" hackers depicted in TV shows. Whatever the reason, the idea of delving into the world of computers and technology captured my imagination.

Ultimately, the decision to pursue computer science was influenced by multiple factors, including parental and peer pressure. My parents, recognizing the growing importance of technology in the modern world, encouraged me to choose a course with promising job prospects. My friends also nudged me towards a field that was perceived to be more lucrative and secure. Despite my initial reservations and the alternative dreams I harbored, I decided to embark on the path of computer science.

Once I made the decision, I never looked back. Enrolling in a BSc program in Computer Science at Dedan Kimathi University of Technology, I began a journey that would open up new horizons for me. The initial courses were challenging, but my background in mathematics and my analytical skills helped me adapt quickly. The more I learned about programming, algorithms, and data structures, the more I realized the potential of this field to make a significant impact.

My fascination with computer science grew with each passing semester. I found myself drawn to coding, spending countless hours solving problems and developing software. The sense of accomplishment that came with creating functional programs was unparalleled. Moreover, the collaborative nature of the field allowed me to work with like-minded peers, exchanging ideas and learning from each other.

The decision to study computer science also aligned well with the dynamic and evolving nature of the tech industry. The possibilities seemed endless, from developing applications that could change lives to exploring the realms of artificial intelligence and cybersecurity. This field offered a blend of creativity and technical expertise that resonated deeply with me.

Looking back, choosing computer science was one of the best decisions I made. It has equipped me with skills that are highly relevant in today's digital age and opened doors to numerous opportunities. My journey in computer science has been a testament to the importance of adaptability and open-mindedness in making career choices. While my initial dreams of teaching and chemical engineering were put on hold, the path I chose has led me to a place where I can make meaningful contributions and continue to grow both personally and professionally.

# 5 University Life

## 5.1 Freshman Year

When I received the acceptance letter from Dedan Kimathi University of Technology, it was one of the happiest moments of my life. Dedan Kimathi, located on the outskirts of Nyeri town, is known for its welcoming atmosphere, regardless of one's background. The anticipation of this new chapter filled me with a mix of nervousness and excitement.

Arriving in Nyeri for the first time was a surreal experience. Nervous energy coursed through me as I navigated this new environment. I rented a house off-campus, sharing it with another freshman who hailed from a different ethnic background. Despite our diverse origins, we quickly formed a strong friendship. The newfound freedom was exhilarating. For the first time, I had complete autonomy. My parents continued to support me financially, which allowed me to enjoy my freedom without worrying about expenses. I could choose what to eat, where to go, and even whether to attend classes. This level of independence was both liberating and overwhelming.

Adapting to this new lifestyle came surprisingly easily. I soon grew to appreciate the independence and the vibrant atmosphere of Nyeri. However, university life presented its own set of challenges. The classes, though not numerous, were densely packed with complex content. There were days when I spent entire afternoons in the library, immersing myself in textbooks to grasp the material. Fortunately, many of the topics in my freshman year were extensions of what I had studied in high school, making them relatively easy to understand.

One surprising aspect of my computer science curriculum was the heavy emphasis on mathematics. When I initially chose computer science, I hadn't anticipated the significant role that math would play. However, my strong foundation in mathematics from high school proved invaluable, helping me navigate through the math-intensive units with relative ease.

Socially, my freshman year was a time of moderate expansion. I made a few good friends, though not as many as I had hoped. Nonetheless, the friendships I did form were meaningful and supportive, helping me feel more connected to the university community.

Academically, I thrived. The rigorous coursework and countless hours spent studying paid off as I aced my exams. By the end of my freshman year, I had developed a clearer understanding of what computer science truly entailed. This initial success bolstered my confidence and set a strong foundation for the subsequent years of my university journey.

My freshman year at Dedan Kimathi University of Technology was a period of significant growth and adaptation. The blend of newfound freedom, academic challenges, and emerging friendships shaped me in ways I had never imagined. It marked the beginning of a journey that would not only deepen my knowledge of computer science but also help me discover more about myself and my capabilities.

## 5.2 Sophomore Year

My sophomore year at Dedan Kimathi University of Technology marked a deeper dive into the core concepts of computer science. It was a year of exploration and hands-on learning, where theoretical knowledge began to manifest into practical skills.

We delved into fundamental topics such as networking, databases, and web development. These subjects captivated my interest, particularly web development. Using resources like YouTube tutorials and online guides, I embarked on creating small-scale websites. It was a thrilling experience to see lines of code transform into functional web pages, each project adding to my understanding and proficiency in this dynamic field.

Amidst my academic pursuits, I also found time for personal growth and exploration. I met someone special—a fellow computer science student—and we embarked on a journey together. Our shared passion for the field created a strong bond, and navigating university life became even more enjoyable with her by my side.

To maintain a healthy balance, I dedicated time to physical fitness. Indoor sports like pushups and pullups became part of my daily routine, keeping me energized and focused. I also cultivated a love for reading, finding solace and inspiration in books that ranged from technical manuals to fiction and biographies.

One of the highlights of my sophomore year was the internal attachment. Organized into groups, we were tasked with developing a practical project that would showcase our understanding of the concepts learned. My group chose to create a car parking system, and I took the lead in developing the front-end interface. It was a collaborative effort that challenged us to apply theoretical knowledge to real-world problems. Successfully presenting our project and receiving positive feedback was immensely gratifying, affirming our hard work and dedication.

In addition to my academic and personal pursuits, I experimented with chess, although my passion for the game didn't quite match my enthusiasm for other activities. Nonetheless, the year ended on a high note as I successfully passed my exams, reflecting the culmination of effort and learning throughout the year.

My sophomore year was pivotal in shaping my understanding of computer science and solidifying my passion for web development. It provided invaluable experiences, from hands-on projects to personal relationships, that enriched my university journey and prepared me for the challenges and opportunities that lay ahead.

## 5.3 Junior Year

In my third year at Dedan Kimathi University of Technology, I began to explore the vast landscape of computer science, delving into various fields to find my true passion. This journey was both challenging and enlightening, as I navigated through different areas of study and practical applications.

One of the key areas I explored was mobile programming. I embarked on personal projects using Java and Firebase, which culminated in the creation of an app called Mtahini. The app was designed to help students and lecturers track exam results. This project was incredibly demanding and often left me stressed. However, it was also a significant learning experience. Through Mtahini, I deepened my understanding of object-oriented programming and other complex concepts. Despite the app not being perfect, it served as a valuable educational tool that hammered home lessons I had struggled with.

As I continued to experiment, I also tried my hand at backend engineering. This proved to be a tough area for me, and I realized that it wasn't my forte at that moment. What truly resonated with me during this period was front-end development. Working with JavaScript, HTML, and CSS allowed me to bring creative ideas to life. I found immense satisfaction in building user interfaces and crafting visually appealing and functional web pages. My skills in front-end development grew significantly, reaching a level where I felt confident and proficient.

The diverse range of lessons during my junior year underscored the breadth of the computer science field. It became clear that there was a niche for everyone, and this realization was both comforting and exciting. However, with graduation looming closer, I also began to feel anxious about my future. The thought of life after university was daunting, but I remained focused on my studies and continued to perform well academically.

One of the highlights of my junior year was working on group projects. Collaborating with my peers allowed us to bounce ideas off each other, fostering a creative and supportive environment. These interactions helped me appreciate the diverse skills and perspectives of my colleagues, and I grew both personally and professionally from these experiences.

Participating in hackathons was another enriching aspect of my junior year. Events like the Google Dev Fest brought industry professionals to our university, providing us with invaluable insights into best practices and the latest trends in the tech world. These events opened my mind to the numerous opportunities available to young developers like myself and fueled my ambition to excel in the field.

Overall, my junior year was a period of intense exploration, growth, and self-discovery. It solidified my passion for front-end development while also exposing me to the myriad possibilities within computer science. The challenges I faced and the experiences I gained during this year laid a strong foundation for my final year at university and my future career.

## 5.4 Senior Year

As I navigate through my final year at Dedan Kimathi University of Technology, I find myself reflecting on the journey that has brought me to this point. From an innocent first-year student to a seasoned senior, the transformation has been profound, and the lessons learned are invaluable. The world of computer science is vast, and it is said that one can spend an entire lifetime studying it without end. This truth has become more evident to me with each passing semester.

Looking back, I am filled with pride for the obstacles I have overcome. My disability, which once seemed like an insurmountable challenge, has become a testament to my resilience. The choices I made, the struggles I faced, and the victories I achieved have all shaped the person I am today. Each scar I bear is a trophy of the lessons learned and the strength gained. I am ready to face whatever lies ahead, embracing challenges as opportunities for growth and viewing the world as my playground, where I intend to play and have fun to the fullest.

This year, I have taken significant strides in expanding my knowledge and skills beyond the traditional classroom setting. I participated in online courses that exposed me to global opportunities and cutting-edge trends. One such program, AICE Essentials, delved into the emerging field of artificial intelligence (AI). It was an eye-opening experience that taught me how to utilize AI tools to enhance productivity. I completed five milestones and a capstone project during the program, each task solidifying my understanding and proficiency in AI applications. The satisfaction of finishing the program was immense, and it fueled my ambition to leave a mark in this era of rapid technological advancement.

In addition to the AICE Essentials program, I am also part of an initiative sponsored by Safaricom, a leading tech company in Kenya. This program focuses on the Internet of Things (IoT), a field that holds tremendous potential for the future. The knowledge and skills I am gaining from this program are invaluable, and I am eager to see it through to the end.

One of the most rewarding aspects of my senior year has been working on a group project that will serve as a capstone unit for our studies. Our team of four students, myself included, is developing a venue booking platform. This project has been a rich learning experience in teamwork and collaboration. Each member brings their unique strengths to the table, and together, we cover each other's weaknesses. The synergy within our group has been remarkable, and it has taught me the importance of leveraging collective strengths to achieve common goals.

As my senior year progresses, I am optimistic about the future. The knowledge I have acquired, the skills I have developed, and the experiences I have gained all point towards a promising path ahead. I am determined to finalize this year on a high note, ready to step into the world with confidence and a sense of purpose. The journey has just begun, and I am excited to embrace the endless possibilities that lie beyond graduation.

# 6. Projects and Achievements

During my four years at Dedan Kimathi University of Technology, I have actively participated in various programs both within the university and online. These experiences, along with my projects, have been instrumental in challenging my understanding of programming concepts and honing my skills.

One of the significant projects I undertook was revamping the UI/UX of our school websites. Using Figma and following well-established design principles, I was able to give the websites a modern and user-friendly look. This project was particularly rewarding as it aligned with my aspiration to become a front-end developer. The process involved meticulous planning, prototyping, and testing to ensure that the final design was both aesthetically pleasing and functional. Through this experience, I gained a deeper appreciation for the importance of good design in enhancing user experience.

Another notable project was creating a recommendation system for booking venues. This system used machine learning algorithms to suggest venues based on user preferences and location. Working on this project opened my eyes to the potential of machine learning in solving real-world problems. I found it fascinating how computers can learn from data and generate insights, much like how humans learn from their environment and experiences. This project not only enhanced my technical skills but also sparked a keen interest in the field of machine learning.

While learning the basics of JavaScript, I created a calculator. Though this project seemed simple at first glance, it proved to be a valuable learning experience. It challenged me to create efficient algorithms and helped me master data structures in a practical context. The project reinforced my understanding of fundamental programming concepts and taught me the importance of writing clean, efficient code.

One of the most impactful projects I worked on was a team effort to develop a medical website that connected doctors and patients online. The platform allowed patients to interact with doctors through text and images, eliminating the need for hospital visits for non-serious cases. This project was insightful as it involved identifying a real-world problem and devising a practical solution. It taught me the importance of teamwork, communication, and problem-solving in a collaborative setting.

These projects, among others, have significantly contributed to my growth as a computer science student. They provided hands-on experience that the classroom setting alone could not offer. Each project presented unique challenges and learning opportunities, helping me build a solid foundation for my future career. Through these endeavors, I have developed a keen eye for design, a strong grasp of programming concepts, and a passion for solving real-world problems through technology.

# 7. Challenges and Overcoming Them

Throughout my university years, I encountered both minor and major challenges that tested my resilience and determination. One of the significant challenges was mobility to and from school. Fortunately, the university had measures in place to support students with disabilities. They provided a car service; whenever I needed to go to school, I would call them, and they would pick me up and drop me off afterward. This service alleviated a major concern for me and ensured that I could attend classes without any transportation issues.

Navigating the campus itself presented another challenge, especially with classes located upstairs. Using the stairs was problematic for me due to my mobility issues. Thankfully, the university had lifts, which made it possible for me to access all the necessary classrooms without difficulty. Additionally, the school had toilets specifically designed for people with disabilities, which made the daily routines more manageable and stress-free.

I also faced the challenge of being short-sighted, which meant I needed to sit near the front of the classroom to see the board clearly. This required me to arrive early to secure a seat close to the lecturer. Despite this inconvenience, it was a manageable issue, and I adapted to it by planning my arrival times accordingly.

Academically, some units were particularly challenging for me to understand. The complex content often left me feeling overwhelmed. However, I addressed this by dedicating extra time to revision and conducting personal research. I found that diving deeper into the material outside of class helped solidify my understanding and ultimately allowed me to grasp even the most difficult concepts.

In my accommodation, I was blessed with the kindness of one of the caretakers, who volunteered to help me with washing my clothes. Her assistance was invaluable and greatly eased my daily life. Her generosity and support were a reminder of the good in people, and I am immensely grateful for her help.

Despite these challenges, the support systems in place at the university and the kindness of those around me made my journey smoother. The university's commitment to accommodating students with disabilities ensured that my learning experience was as stress-free as possible. Through perseverance, planning, and the assistance of others, I was able to overcome these obstacles and continue my education successfully. These experiences have taught me the importance of resilience, the value of a supportive community, and the significance of accessibility in education.

# 8. Internships and Work Experience

While I cannot claim to have worked formally in a traditional job setting, my journey through the world of computer science has been rich with invaluable experiences. Internships and work experiences have played a crucial role in shaping my professional skills and understanding of the field.

My first significant experience was during an internal attachment organized by the university. This attachment was a pivotal moment for me as it introduced me to the dynamics of working in a team. I was grouped with several classmates, and our task was to create a functional car parking system. My primary responsibility was front-end development, where I utilized my skills in HTML, CSS, and JavaScript to design and implement the user interface. This project not only enhanced my technical abilities but also taught me how to collaborate effectively, communicate ideas clearly, and contribute meaningfully to a team effort. Presenting our project and successfully passing the assessment was a rewarding experience that boosted my confidence and reaffirmed my passion for front-end development.

Beyond formal attachments, I have dedicated significant time to personal projects that have substantially sharpened my skills. One of my notable projects was revamping the UI/UX of our school websites using Figma. This project allowed me to apply design principles in a real-world context and receive feedback from users, which was instrumental in refining my design approach. Through this, I learned the importance of user-centered design and the impact of a well-thought-out user interface on overall user experience.

Another project that stands out is the creation of a recommendation system for booking venues. This project involved delving into machine learning, a field that fascinates me. I learned how to process data, build models, and implement algorithms that could provide useful recommendations to users. This experience was eye-opening and deepened my appreciation for the power of machine learning in solving practical problems.

A simpler yet challenging project was building a calculator while learning JavaScript. Although it seemed straightforward at first, it pushed me to understand the intricacies of algorithms and data structures. It was a practical exercise in problem-solving and logic, reinforcing fundamental programming concepts that are crucial in any software development role.

One of the more impactful team projects I participated in was the development of a medical website that connected doctors and patients online. The website allowed patients to interact with doctors through text and images, facilitating medical consultations without the need for in-person visits for non-serious cases. This project taught me how to identify real-world problems and create solutions that can make a tangible difference in people's lives. Working as part of a team also highlighted the importance of collaboration, communication, and leveraging each member's strengths to achieve a common goal.

As I approach the completion of my fourth year, I am required to seek an external attachment, which will provide further exposure to the professional world. I am excited about this opportunity, as it will allow me to apply my skills in a real-world setting, gain new insights, and continue to grow both personally and professionally. The experiences and projects I have undertaken so far have equipped me with a solid foundation, and I am eager to build upon it through future internships and work experiences.

# 9. Personal Growth and Extracurricular Activities

My journey of personal growth has been deeply influenced by the experiences and environments that have shaped me over the years. Growing up in a Christian family, I attended church every Sunday with my parents, Martin Mburu and Jacinta Wambui. This routine fostered a strong moral foundation within me, instilling the fear of God and a sense of responsibility. Although I no longer identify as a Christian, the values I learned during those formative years have stayed with me. They taught me the importance of a loving and united family and instilled a sense of satisfaction with the simple things in life, even as I continue striving to carve out my place in the world.

During my primary school years, one of my favorite activities was debating. I joined the debate club and found immense joy in articulating my thoughts and engaging in intellectual exchanges. Debating taught me to listen carefully and understand various viewpoints, which in turn helped me craft well-reasoned responses. This skill has been invaluable in many areas of my life, including my academic and professional pursuits. It honed my ability to communicate effectively and think critically, qualities that are essential in any field.

In high school, my passion for literature flourished. Reading allowed me to escape into new worlds and explore endless possibilities through the eyes of different authors. This exposure to diverse perspectives enriched my understanding of human nature and deepened my empathy for others. Literature also enhanced my ability to express myself, both verbally and in writing. The stories and characters I encountered helped me understand complex emotions and situations, which has been beneficial in navigating my own life experiences.

One of the most significant aspects of my personal growth has been my relationship during my time at university. This relationship taught me the importance of empathy and understanding. Coming from different backgrounds, both my partner and I carried our own emotional baggage, and learning to navigate these differences helped me grow emotionally. It taught me patience, communication, and the importance of supporting one another through life's challenges.

At university, my extracurricular activities have played a crucial role in my development. Engaging in indoor sports like push-ups and pull-ups has helped me stay physically active and manage stress. Additionally, my involvement in various projects and programs has broadened my horizons and provided me with practical skills that complement my academic knowledge. Participating in hackathons, such as the Google Dev Fest, exposed me to industry best practices and allowed me to network with professionals and peers who share similar interests.

Overall, the combination of my upbringing, education, and extracurricular activities has contributed to my personal growth in profound ways. The moral values instilled in me by my family, the skills developed through debating and literature, and the emotional growth from my relationships have all shaped me into a well-rounded individual. As I continue my journey, I am grateful for these experiences and the lessons they have taught me, knowing that they will guide me in my future endeavors.

# Future Aspirations

My future aspirations are a blend of immediate professional goals and long-term dreams that reflect my enduring passion for education and community service. As I stand on the cusp of completing my studies, I am filled with a sense of purpose and a clear vision of where I want to go next.

## \*\*Short-term Goals:\*\*

My foremost goal is to successfully graduate from Dedan Kimathi University of Technology with a degree in Computer Science. This achievement will be the culmination of years of hard work and dedication, marking a significant milestone in my educational journey. Graduation will not only validate my efforts but also serve as a solid foundation for my future endeavors.

Post-graduation, my immediate aim is to secure an internship that will allow me to polish my skills and gain practical experience in the industry. This internship is crucial as it will bridge the gap between academic knowledge and real-world applications, providing me with the hands-on experience necessary to excel in web development. I am particularly interested in finding a position that challenges me and exposes me to the latest industry practices and technologies.

Equally important is my intention to seek out capable mentors. I recognize the value of guidance in any career journey, and finding mentors who can provide valuable insights, support, and direction is essential. Mentorship will help me refine my skills, understand industry trends, and make informed career decisions, ultimately shaping my path to professional success.

## \*\*Long-term Goals:\*\*

Looking further ahead, one of my long-term aspirations is to use my skills and knowledge to give back to my community. I am passionate about creating programs or platforms to educate young unemployed Kenyans on how to find and secure jobs online. By sharing the opportunities available in the digital world, I hope to empower others to achieve financial independence and improve their quality of life. My passion for education remains strong, and I believe in the transformative power of knowledge. Seeing others succeed and knowing I played a part in their journey would be immensely rewarding.

Another significant goal is to further my education. If the opportunity arises, I would like to pursue a master's degree to deepen my understanding and expertise in my field. Ultimately, I aspire to achieve a doctorate, which would enable me to contribute to academic research and share my knowledge as a university lecturer or industry expert. Advanced degrees would not only enrich my personal knowledge but also position me to influence and inspire the next generation of computer scientists.

Success for me is not just personal but communal. I want my achievements to positively impact my community. By using my skills to create job opportunities, educate others, and contribute to community development projects, I hope to foster an environment where others can thrive. My experiences have shown me the importance of a supportive community, and I am committed to giving back in meaningful ways.

In conclusion, my future aspirations are guided by a commitment to continuous learning, professional excellence, and community service. By achieving these goals, I aim not only to advance my career but also to make a meaningful difference in the lives of those around me. Whether through securing an impactful internship, seeking further education, or giving back to my community, I am determined to pursue a path that reflects my values and ambitions.

# Conclusion

Reflecting on my journey from a young boy in Sagana to a final-year Computer Science student at Dedan Kimathi University of Technology, I am filled with a sense of accomplishment and gratitude. This journey has been marked by significant personal growth, numerous achievements, and invaluable life lessons.

My early years in primary school were characterized by an unwavering passion for education. The competitive spirit I developed and the lessons learned from both success and failure laid a solid foundation for my academic pursuits. Moving through various schools and overcoming the challenges of mobility after my operation taught me resilience and the importance of determination. The support of my family, especially during the difficult times, underscored the value of a strong support system.

High school was a period of exploration and self-discovery. My love for chemistry and mathematics, nurtured by inspiring teachers, guided my career aspirations. Though my initial dreams were to become a teacher or a chemical engineer, the dynamic world of computer science eventually captured my interest. The decision to pursue a degree in this field, influenced by the portrayal of computer scientists in media and advice from loved ones, has proven to be one of the most pivotal choices in my life.

University life brought a mix of freedom, rigorous academics, and practical experiences. From building small-scale websites to developing more complex projects like the car parking system and the Mtahini app, I honed my skills and gained confidence in my abilities. The challenges faced, whether they were related to my physical mobility or the demanding nature of my studies, were met with perseverance and adaptability. The friendships formed, the mentorship received, and the extracurricular activities engaged in, all contributed to a holistic educational experience.

As I look towards the future, my aspirations are clear. Graduating and securing an internship are immediate goals that will help me transition smoothly into the professional world. In the long term, I aim to give back to my community by educating young Kenyans about online job opportunities and furthering my own education to the highest levels possible. My journey has taught me the importance of resilience, continuous learning, and the power of community support.

In conclusion, my life so far has been a testament to the belief that with determination, support, and a willingness to learn, one can overcome any obstacle and achieve great things. The experiences and lessons learned have not only shaped me into the person I am today but have also prepared me for the future. To anyone reading this, my message is simple: never stop believing in yourself, embrace every challenge as a learning opportunity, and always strive to make a positive impact in the lives of others. My journey is a story of growth, resilience, and the relentless pursuit of dreams, and I look forward to what the future holds with optimism and hope.

# Acknowledgments

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In conclusion, this journey has been a collective effort, and I am blessed to have had such a strong support system. As I move forward, I carry with me the lessons, love, and encouragement you have all provided. Thank you for being a part of my story.