



### NEW YORK CITY COLLEGE OF TECHNOLOGY

of The City University of New York

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- 4 Basketball and Biology:
  Integrating Life's Lessons for a Broader Vision
  Shanya Hopkins
- 5 An Emerging Professional: Transformation through Program Engagement Kimberly Jones
- 6 My Experience in Developing a Learning Management System for Kabul University Christopher Navarrete
- 8 Constructing an Architect and Building Skyscrapers Mikaela Marie Camacho
- 9 Becoming a Professional Programmer: From Bangladesh to City Tech Anonnya Mahmud
- 10 Encased in Bedrock:
  A Trip to the Federal Reserve Bank
  Manuela Hoyos







## BASKETBALL AND BIOLOGY

## INTEGRATING LIFE'S LESSONS FOR A BROADER VISION

### Shanya Hopkins

School and Basketball have some similarities. Basketball is a complex game with a simple setup. The simplicity comes in the structure, which is ultimately two teams composed of players who fill different positions all working under the guidance of a coach, someone who has mastered the game. The different players and the coach all work together to achieve a common goal. Some say the goal is to win by defeating opponents, while others describe the goal as achieving or mastering the craft to obtain success. School is my court or playing field. My professors and mentors are my coaches, and I am the team.

Each player position is filled with a different aspect of myself that I must work together to create the whole. One player is curiosity, who drives my thirst for knowledge, compelling me and pushing me to learn more. Another player is the strategist, who determines how to run the play on the court and how to position each player to attain the objective. Of all the members on the team, the most important is the motivator; it is the part of self that drives the team, the backbone. The motivator is the one player who always keeps the end goal in sight and maintains morale when the team hits lows. However, the end goal or win encompasses many different aspects. A win for me is every time a new subject is learned and mastered and a higher level of education is attained. Ultimately, a win occurs when I apply my knowledge to a prosperous career in medicine. While the basketball season eventually ends, the pursuit of knowledge never stops. This is where my game differs from others, as I believe there will always be something new to learn.

While the basketball-school analogy may not make sense to everyone, it describes me perfectly. I view myself as a mosaic of different elements fused together. Although the elements perform their own functions separately, they all possess a common goal. My academic career has instilled in me many qualities whose functionality has contributed to my character. Though I am soft spoken, I let my work and records speak for me. My determination to win each game has led me to attend one of the most prestigious boarding high schools in New England, Deerfield Academy, where I found myself one of 11 minority students in my class. Not only was I able to thrive and maintain there, but I was able to utilize every aspect of the opportunity that I was presented and discovered new levels of adaptability.

From my sophomore year to senior graduation in high school, I was one of a select group of 13 students who made a weekly commitment to volunteer firefighting. We were tasked with completely dedicating ourselves to assisting on every call, even if we were in class. For example, during the winter term of my junior year, I was in the middle of my English midterm when the firehouse bell rang. Although the midterm was important and I had very little time left to finish, my sense of duty compelled me to drop everything and hastily make my way to the firehouse. Upon reaching the firehouse, we were

informed that one of the historic houses, just off campus, was on fire. Therefore, it was crucial to have all hands on deck. After gearing up and arriving to the fire, my 12 classmates, the firefighters, and I remained on scene for 6 hours tackling the blaze and ensuring the safety of everyone involved. The cold mist from the water hose combined with the brisk winter air left us freezing. Despite this, we never faltered; the togetherness and strength that my team exemplified on that day led to the fire being successfully extinguished, and over 25 people being rescued. It was from this experience that I learned the strength of commitment and dedication.

I also co-led the Black Student Alliance for two years, which was a group that met once a week to support the African-American students on campus and aided the administration in founding new diversity measures. Furthermore, I founded three other clubs, The Deerfield Academy Poets, Writers of Deerfield Academy, and Deerfield Academy Step. In addition, I was a core member of a special food team that worked to make the school 100% local produce dependent. My involvement in these clubs showed me the importance of being a good leader and the influence and power that lies in students. I learned that with the right direction and for the right cause, we all have the power to bring about change. Though my career at City Tech only recently began two semesters ago, I have already found my place and excelled. Outlets for expression are subjective to the individual; some discover themselves in journaling or find themselves in a game or competition. School is and has always been my outlet, and science has been my love since childhood.

While the other kids played tag or hide and seek in the park, I sat under the trees and wondered how they helped us breathe, and how all the tiny organisms coexisted in one space. My interests fostered a natural aptitude for science, and I immersed myself in biology and chemistry in school. Looking into the future, I have plans to obtain a bachelor's degree in biology with a minor in chemistry, as well as a PhD in biology or neuroscience. I plan on attending medical school, obtaining my MD degree and pursuing a career as a cardiothoracic or neurosurgeon. Though there are only five Black female certified cardiothoracic surgeons, I will not let that stop me, but rather only allow it to propel me and become a member of the select group.

## AN EMERGING PROFESSIONAL

# TRANSFORMATION THROUGH PROGRAM ENGAGEMENT

Kimberly Jones



As a returning student working towards a bachelor's degree in Professional and Technical Writing and with a specialization in psychology, I have come to appreciate my time at City Tech, which has helped me discover a career path as well as encouraged me to get more involved in school activities than when I first started college. Many people have told me that I am a good writer, but I have never had confidence in my writing abilities. After my time off from college, I saw that City Tech had a new degree program. It peaked my interest, so I decided to take a chance and join. As for pursuing psychology, I guess I have always been curious about human behavior. I believe learning brings new perspectives about oneself and the world around you.

At City Tech, I am a member of the National Society of Leadership and Success (NSLS). Being a part of this club was instrumental in figuring out my short and long-term goals as a student and a professional. As a shy and laid-back person, NSLS has encouraged me to get out of my comfort zone by participating in group activities that encourage better communication and teambuilding skills. For example, there were times where we had to act out an activity on stage or within our assigned groups, and reflect on what took place. The NSLS was also instrumental in changing my mindset about failure; it taught me that I should not let a failure, or a perceived weakness affect school, work, and my personal life, and that I should always view failure as an opportunity to grow. In addition, the club would show stories of people from different occupations, sharing how they overcame a challenge in their life and how college students can learn from their mistakes. I was also encouraged to listen to weekly podcasts that offered inspirational messages to club members. As affirmations, these messages would help members get through a difficult time. After my time in the NSLS, I was inspired to pursue a leadership role in the school. I became very receptive to any opportunity that was going to come my way.

This new mindset has led me to become a part of the CUNY Service Corps. With this opportunity, I was able to gain real work experience and most importantly, give back to a community in need, something I always wanted to do. As a

Service Corps member, I volunteered and gave back to the elderly community with City Meals on Wheels. Additionally, I have been able to obtain an internship with the progressive Working Families Party, a group that spreads awareness about political policies that affect working families across the nation. Because of these volunteer opportunities, I have developed the tools needed to contribute to my own community outside of my academic career.

In the future, I would like to create small specialized programs dedicated to uplifting the African-American community. I envision these small interconnected programs will revolve around helping and guiding individuals deal with large and small-scale problems. They would also provide access to recreational programs, so participants have an outlet to express themselves in their own way. Because each program will be based on a specific topic, problem, or need, such as education, mental illness, parenthood, sexual orientation, and more, I hope it would give the community the necessary tools to overcome any problem at any stage in their lives. You cannot expect an individual to perform a task if they were not taught how to do it properly, so without knowing the basic knowledge, one will struggle; I aim to fix this issue in any way I can.

In pursuing my bachelor's degree, I have been on the Dean's list and have strived to become a part of the Honors Scholars Program to continue my academic growth. In terms of a career, I see myself as a usability specialist. During my studies, I registered in a planning and testing user document course, where I discovered my interest in usability. It excites me to know that I can be a part of the creative process in developing documentation and testing the latest technology the public will be using. With technology developing at such a fast pace, the possibilities are endless—being in the center of it all sounds amazing.

Looking back at my early college career, I can say that I was uninterested and merely passing courses. However, after being in the Honor Scholars Program, I can see the change in myself. I want to continue challenging myself because it will help me transition from a student to a professional.

VOLUME 5 ISSUE 2 5



n the fall of 2017, I joined the Honors Scholar Program, and Professor Lansiquot gave me the opportunity to receive honors credit in her course, English 3780: Planning and Testing User Documents, which is a required course in the Professional and Technical Writing (PTW) Bachelor of Science program. We worked on a project titled "Developing a Learning Management System for Higher Education in Afghanistan," and in addition to my regular coursework, I was given two goals to complete. First, I had to design the information architecture of Kabul University's degree program website. The website would contain basic information on the college's Psychology and Educational Sciences program. Second, I had to refine three different quick reference guides for program faculty and students.

Located in Afghanistan, Kabul University is one of the oldest and largest colleges in the country. Their Psychology and Educational Sciences program offers a wide variety of courses in mental counseling, career counseling, and educational counseling. Graduates will find employment in mental health clinics, educational institutions, academic institutions, and field hospitals. The primary mission of Kabul University is to increase mental health awareness, mental health care, and mental needs and services across the country. They introduced the program because more than 60% of Afghans have been psychological troubled by war, political instability, and unemployment, among other factors.

I began the project by reading a lengthy document that detailed the aforementioned program. The document was disorganized and had several grammatical errors. In reviewing the document, I thought about how I could improve its structure and design. I discovered that I could group most of the sections together because they contained similar information. Additionally, the headers could have been shorter, with names that are more

common. Finally, the document as a whole could benefit with the use of images, bullet points, and tables. With my suggestions, I created the contents requirement document. The document essentially details what information should go into the program's website and why. I found this assignment to be somewhat difficult because I had to think about how to improve every single page (about 60 pages). Regardless, it was a very thought provoking and worthwhile experience.

Once I completed the contents requirement document, I began creating a task model in Microsoft PowerPoint. A task model is a diagram that is used to inform a user how to reach a specific goal. It contains several steps with help information. My task model demonstrated how to "create a website for Kabul University." The task model was rather simple and straightforward to design. as the steps to reach my goal were mostly common sense. For example, before creating the website, there was an obvious need to organize data and create drafts. I do not think I would have ever thought about creating a diagram with such simple shapes. Ultimately, I found creating the task model to be a fun and interesting experience.

Lastly, I had to create a sitemap for the Psychology and Educational Sciences website. The sitemap seemed simple at first because it just lists every linked page the website will contain, but it was actually very difficult and complicated as it was essentially a more advanced version of the contents requirement document. In addition, the document did not have a proper hierarchy. so my goal was to create one for the sitemap. In order to reinterpret the information as clearly and succinctly as possible, I researched how other college websites named their tabs. As a result, I grouped headers together. Eventually, I reorganized and reduced the amount of headers in the document (originally around



20) to seven. it took three attempts to perfect the sitemap. After completing the first goal of the Honors Scholar project, my focus shifted to the second goal, designing the quick reference guides. A quick reference guide is essentially a cheat sheet, a one-page document that details the most important information about a topic. I was tasked with creating quick reference guides for Moodle, Second Life, and Sloodle for students. I began by creating a guide for Second Life, a virtual world where you can interact with other users.

For the Second Life quick reference guide, I worked alongside two other PTW students in the course, George Gordon and Cherishe Cumma. Before we created the guide, we had to first research our audience, which were the Kabul University students. We decided to create a guide for how to roleplay scenarios in Second Life. It would be designed for individuals new to Second Life because we believed that most Kabul University students have never used the program. This means that the information we plan to present must be very clear and concise. After choosing our topic, we then decided on the headers for the guide (selecting a pre-made avatar, user gestures, etc.). With the necessary information at hand, we created our own drafts of the guick reference guide. I designed mine in Adobe InDesign, while George and Cherishe designed theirs in Microsoft PowerPoint.

After completing our individual quick reference guides for Second Life, we reviewed each other's work in a task analysis. We gave suggestions and discussed how the final guide should appear. We decided on using my guide as a template because it explained the information in the most effective manner; this was due in part to its simplistic, yet concise design. As a result, I was tasked with improving the Second Life quick reference guide on my own.

I revised the quick reference guide several more times in order to test it in a focus group setting. For the focus group, we selected six participants who were very similar to our target audience. We learned about our participants via a survey that asked about their experience with Second Life and more. The revised quick reference guide was mostly a success. There were only a few issues in terms of the guides design and directions, which I later corrected. I found this quick reference guide assignment to be rather simple thanks to my team. I enjoyed designing the quick reference guide in Adobe InDesign, as I learned a significant amount on usability testing.

The next quick reference guide I created was for Moodle. Moodle is an online learning management system, similar to Blackboard. For example, users can upload assignments and complete quizzes online. In addition, Moodle is open-source and free to use; this allows Kabul University to create learning environments that satisfy their courses and student's needs. For this guide, I provided a simple overview of the menus. Moodle seemed to be an easy to use tool that is useful for all students. As a result, this quick reference guide was simple and straightforward to complete.

Lastly, Sloodle was the next quick reference guide to create. Sloodle is combination of Moodle and Second Life. This means that with Sloodle, educators and students can, for example, upload assignments and complete quizzes while inside Second Life. This quick reference guide was very difficult to complete because there was a lack of information online. As a result, I decided to create a guide that explained the most important terms students should know.

Overall, my Honors Scholar project was very challenging, but fun. I learned much about usability testing. For example, I now know how to test my projects in a focus group setting. I also know more about creating sitemaps and quick reference guides. In addition, I found the poster presentation to be a worthwhile experience because I learned about other projects and made new friends throughout the day.

VOLUME 5 ISSUE 2 7

# CONSTRUCTING AN ARCHITECT BUILDING SKYSCRAPERS

### Mikaela Marie Camacho

It is a bright summer day, and I am standing at an intersection just waiting for the light to change. I feel the wind brush against my face as cars fly by. I hear a local gardener snipping away at a hedge. I see mothers with their children and businessmen with briefcases, and I cannot help but wonder where I am going.

My name is Mikaela Camacho. I was not always an honor student. In fact, I did not pass 1st grade because I could not even write my name. When I was 14 months old, I developed a seizure disorder. As a result, I was given medication that affected my learning abilities. Doctors, as well as teachers, told my mother that I would have to be placed in special classes because my cognitive abilities had been negatively affected. Consequently, I felt I was not entitled to success. I felt devastated and wondered if everyone was correct. I tried pushing forward, but for every step I took forward, I took two back. As my classmates learned how to spell new words, I struggled with how to spell my own name. It came to the point where I just wanted to give up, but deep down, I knew there was still hope.

After failing 1st grade, my mom sat down with me and said, "What do you want to do?" I chose to go to a new school. I chose to fight with determination and perseverance. I chose to study and study some more. It was not easy at first because sometimes I had to study more than other students, but I never gave up. In the new school, I was very lucky to be placed in Ms. Lynch-Nieves' 1st grade class (the second time around). Unlike my previous teachers, she saw my full potential. Ms. Lynch-Nieves lovingly taught me. She would kneel next to my desk and listen to everything I had to say. Whenever I received a good grade, she would put a star next to my name. It did not stop there. After every 10 stars, she allowed me to choose one item from her "magical" treasure chest. That chest had everything of which a 7-year-old girl could dream: teddy bears, coloring books, dolls, and candy. The greatest gift she gave me that year was a copy of "The Giving Tree" by Shel Silverstein. In the story, an apple tree gave and gave until it had nothing more to give. Even when it was just a stump, it still provided a place to sit for the little boy that was now an older man. Like the apple tree, Ms. Lynch-Nieves gave me so much. She opened my eyes to the beauty of education. She made me feel important and that I truly mattered. She did not isolate me from my classmates; instead, she treated me like them. From this experience, I regained my confidence as a student, and by the end of that year, I received awards and honors for my academic achievements.

My Mom has also played a significant part in my life. Every day after school, before turning on the TV, we would sit together at the dinner table and work on my homework. Since she was

a teacher's assistant, she would pull out Mr. Apple the puppet and help me with my English homework. She would say, "Mykah, the frog sat on the \_\_\_\_\_?" I would reply something like this, "Staircase, Mommy." I know that this must have frustrated her, but she never gave up on me. Whenever she reviewed my homework and saw something she did not like, she would tear it up and make me do it over again. Whenever I had a lot of homework, she would stay up with me and not fall asleep until I finished all my homework. If I got all A grades on my report card, she would treat me to one of my favorite restaurants or give me a prize. My mother encouraged me to strive to become the very best I could be.

Most importantly, I thank God for His love and Mercy. I know I would not have been able to make it this far without His help. He gave and continues to give me the strength to fight. He gives me the knowledge needed to understand what is being taught. He gives me enough energy to get through each day. He has been my fortress and shield in times of trouble and my best friend in times of solitude. Simply put, God is my everything.

Although my educational success began in Ms. Lynch-Nieves' class, Glory to God, I have remained an honor student throughout my academic career. In high school, I was even able to graduate a year ahead as Valedictorian of the class, and receive an Advanced Regents Diploma. After all, I have always had a great support system, made up of my faith in God, parents who love and guide me, and teachers who support and instruct me, so I can become the best I can be.

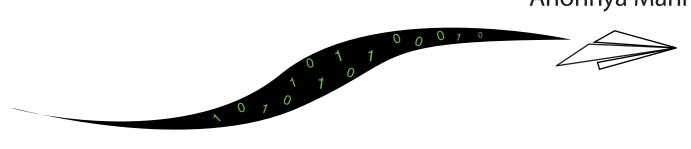
One day I hope to become an architect. Just like Ms. Lynch-Nieves, I too wish to change the lives of the people around me. For a while, I considered becoming a teacher because of the impact Ms. Lynch-Nieves made on my life. I wanted to provide the same services I received as a student to my students and to help them realize that everything is possible. However, after observing a teacher for the first time, I felt that I did not have what it takes to become one, so I looked for a career that better fit me. In this process, my attention shifted toward architecture. It combined three of my favorite things: art, history, and math.

Architects are innovators, creators of the unimaginable. All of the buildings that surround us tell a story, and one day, when my building is finally added to the New York City skyline, I want it to reflect my life story. Before a building is constructed, someone decided that an empty lot had the potential to become something greater. For that potential to be realized, an architect has to create plans and bring them to fruition. Likewise, God is the architect in my life—my inspiration, along with all the people that have helped shape me.

# BECOMING A PROFESSIONAL PROGRAMMER

### FROM BANGLADESH TO CITY TECH

Anonnya Mahmud



Life is like a school, you learn about yourself, your goals, and your ability to face difficulties head-on. You learn that in order to become successful in life, you must never lose hope. This is what motivates me to dream, and gives me the strength to overcome any challenges. At a certain point in our lives, we have to face the harsh reality. It is always painful to see yourself fail, but facing your failures will teach you how to move closer to your goals. I endured many difficulties and conflicts to come to this point in my life, but I confronted and overcame all of them.

One of the pivotal changes in my life occurred when I emigrated from Bangladesh to the United States, the nation off immigration. I came to the United States 5 years ago to live a life with more opportunities and better education. I also wanted to become established and fulfil my dreams. Unfortunately, I did not speak English at the time, so I faced difficulties adapting to American culture. Despite this, I worked diligently to excel in my academic classes, especially English.

Iremember when I first started going to middle school; clothing and language were important issues for me. I felt isolated because I had a different attire from the rest of my peers. Unfortunately, I was the only Bengali student in my class, so I could not share anything with anyone. It is not that I was ashamed of my identity or the way I dressed, it was just difficult for me to fit in because I was different. As the days passed, I tried to participate more. The other students then started praising me for my efforts and began talking to me. It was a relief. Finally, I told myself that sitting in the corner would not get me anywhere, and that I should start speaking with everyone to learn English. There was no other way I would be able to fit in with the rest of my peers. I had to gather enough courage to speak first.

To overcome the language barrier, I also started reading more English books and dictionaries. I also took ESL classes at the start of high school. My efforts proved to be successful, as at the end of my freshman year, I took the NYSESLAT and passed. I was finally able to take regular English classes. After

the first semester of my sophomore year in high school, my teachers recommended me for English 4 Honors, in which I excelled. Therefore, my honors teacher recommended me for advanced placement Literature 5. Teachers informed me that this class would be very challenging. I knew that it would be difficult, but I wanted to take the class anyway because it would help me in college.

After finishing high school, I enrolled in City Tech and decided to major in computer science because I wanted to learn something different beyond my limits. As a Muslim female and the oldest daughter of the family, I have many responsibilities. My parents supported me through the journey of learning English and becoming a professional programmer. Not every parent goes against the norms of family and society to support their child's dream. I decided to go in the IT field because it was very interesting. Since childhood, I loved mathematics, but I did not want to become a mathematics teacher because it is not what I wanted to do. That is why I chose computer science, because I could learn mathematics and programming and have a successful future. My parents wanted me to dream big and to become what I wanted to be in the future. In my opinion, this is all a daughter can ask for from her parents.

Learning depends on the person's interest. For me, English was one of my interests. English is an international language that is useful to find jobs, travel, and communicate with people from around the world. Yes, it was difficult to learn English, but it would have been disappointing if I gave up. Facing this challenge has made me stronger.

Life is all about taking challenges and overcoming them to achieve your dreams. To be successful in life, you must believe in yourself and be happy with what you are doing. I am happy with the success that I achieved as a teenager. In the future, there will be many more challenges to come. I will try my best to endure and lead myself to my goal. At last, here I am, one of the undergraduate students at City Tech, who will never give up on her dreams.

VOLUME 5 ISSUE 2 9

## **ENCASED IN BEDROCK**

## A Trip to the Federal Reserve Bank

Manuela Hoyos





The trip to the Federal Reserve Bank (FRB) of New York took place on Tuesday, January 10, 2017. There were students from the Honors Scholars Program and the National Science Foundation's Science, Technology, Engineering, Mathematics Talent Expansion Program. We met at 10:30 am in front of the building and had to pass through security as we entered. We were escorted to the museum part of the building, where the staff gave us a tour. The tour guide gave us an introduction about how the FRB works and talked about its history. We walked round the museum as the tour guide mentioned that there are 12 districts of the FRB, and New York is number two. Presidents of the districts meet to make decision about economic policy in every district. Other things that happen at the FRB include research, supervising banks, making reforms when there is a financial crisis, and supervising non-bank organizations. All 12 Federal Reserve banks do cash processing, store bank's extra money, and detect old bills; these are shredded, recycled, and replaced with new bills. As a souvenir, we were given a bag of shredded bills. The tour guide also talked about the history of the building design, which was designed after Italian renaissance buildings.

We then went down to the gold vault area, which is

fivestories down. There are over 500,000 gold bars at the FRB encased by bedrock. We watched an introductory video and learned that the FRB stores one-fourth of the world's official gold supply. Each bar has a serial number so that it can be recognized. The gold is mostly from foreign banks, from countries with which the United States does business. These countries are not charged for keeping their gold at the FRB, but every time a bar is moved, they are charged \$1.75 per bar. We saw two vaults. The first vault has a cylinder door that weighs 90 tons, and the second door weighs 30 tons.

We were not allowed to take any pictures inside the building, so we took a group picture outside. Overall, this trip was very entertaining and informative. The students were very engaged as they asked several questions. Most of us were shocked about the amount of gold that was stored at the FBR, and we were excited to be able to see it in person. It was an enriching experience, especially for the students that are in science related majors because this was an opportunity to learn interesting facts about a field outside of their own. For the students in business and mathematics related fields, it was an informative experience to learn about the economy. It was also an opportunity for the students to interact between themselves.

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