

SECME: Plan It. Build It. Live it!

Matthew Diaz

Grade 8

Lamar Louise Curry Middle School

Miami Dade County Public Schools

District 9

Ms. Suarez

If I could have strung words together at that particular moment in my existence, I probably would have said something like, “Wow, that is the most amazing thing I have seen in my entire life!” Now, my “entire life” at that point may have added up to a total of fifteen months, if that. But that didn’t matter. Even my little toddler self-seemed to understand that something life-changing and magical had just taken place: I had met my first computer.

Fast forward some thirteen years later, and I am not much different from that captivated little boy. Sure, I know much more about computers now, but that pure sense of wonder is still with me just as it was then, every time I am in front of the screen. So when the SECME announced its essay contest, I figured it would be pretty easy for me to find my career somewhere in the world of computers. What I was not prepared for, was how much I would learn about myself in this journey of discovery and what an unexpected path I would discover.

As part of this journey, I knew I was expected to take inventory of my interests. This sounds pretty straight-forward on paper, and for the most part, it was. Between my family members and I, we managed to fill a page and a half of interests within a few short minutes. Some of those interests, not surprisingly, revolved around my love for computers: programming, gaming, computer-based architectural design. Additionally thrown in there was also my growing interest in environmental science. I had not thought about this too much prior to this interest search, but in taking inventory of my likes, it became clear to me that the state of our environment had been a concern in my mind for quite a while. Reading through my list, it was also obvious that the social sciences intrigued me: Anthropology, History, Diplomacy and Politics were emerging

interests. As I grew into my teens, I realized I had a growing need to understand our society as a whole and to do my share to improve where it was lacking. Technology held my attention, but I knew by taking a good look at what moved me, a career in technology would only fulfill me if it also made a positive impact on the world.

What did I love, I wondered? What are the things that got me excited, I asked myself. I loved to create environments (cities, homes, structures) on computer programs. I also cared about the environment and the people of this world, but did this all add up to a career I would find meaningful? I have to admit, it was not easy to review my career options. I knew from the start that engineering would be a strong option for me. Yet, my initial search of traditional engineering careers was a little disappointing to me. While options such as civil engineering and architectural engineering peaked my curiosity, none of them felt like a perfect fit. There was something missing, and for a while, I could not put my finger on what this something was. Then, I came across a new but growing field: Sustainability Design Engineer, or informally known as, “Green Engineering”. This caught my attention, and it got my heart racing. Creating and designing environments thrill me. The idea of creating these environments in a way that conserves resources and emphasizes the health and well-being of the planet, in general, gave me a rush—a feeling that I had discovered something that perfectly combined my love for creative technology and social responsibility.

A new field of study makes it difficult to find programs that focus on this area. Near to my home, I found that Florida International University (FIU) offers engineering students courses that focus on environment and sustainability. However during my research I came across the Center for

Sustainable Engineering, an organization that aims to help engineers, “make decisions in such a way that our environment is preserved, social justice is promoted, and the needs of all people are provided through the global economy”. This organization was created in partnership with five major universities: Arizona State University, Carnegie-Mellon University, Georgia Institute of Technology, and the University of Texas at Austin. I researched each one of these universities and found myself interested in Georgia Institute of Technology, or Georgia Tech as it is widely known.

Georgia Tech has a program in Civil and Environmental Engineering that is increasingly focused on helping create a greener world. This prestigious university offers programs at both the Bachelor and Master levels. When reading through their information, I knew that Civil Engineering with a focus on sustainability would truly fulfill me.

The world is changing, no doubt about that. Technology has made it possible for humans to move into the future in gigantic steps. Never, in the history of mankind have there been so much innovation and so much growth. The world is increasingly interconnected. It is a very exciting time in which to grow up, but technology has come with a heavy price: environmental damage. We are growing too fast and our world, with its limited resources, is suffering. The only way for human beings to not only continue to exist but to thrive is to find responsible solutions to our problems. Using technology to enhance our environment rather than contribute to its demise is not only the right thing to do, but, at this time, it's an absolute necessity. Being a Sustainability Design Engineer would mean creating important landscapes in which people can live and work, while keeping focus on the planet. What an exciting career!

When I started this journey, I had the idea that computers would be in my future. I knew I was fascinated by computer systems and I knew I loved to create landscape and designs in computer programs. Yet, I did not truly have a career path in mind. This journey helped me realize that it was much more than computers that mattered to me, and it helped me focus on a new and growing field that would mix my love for computer technology and design with my growing need to help our world. I have this vision: it is ten years into the future, and I just helped plan, design and create homes using computer technology for a little town close to the Amazon jungle. The people living there now have comfortable homes and a safe place to live. Their homes are also eco-friendly, and minimize any damage to the wonderful jungle nearby. I have a big smile on my face. I am satisfied. Thank you, SECME.