Statement of Purpose

A 12 year old's quest to get into Harvard

By Refath Bari

The Production of **Genius**

My name is Refath, and being an 13-year-old 7th grader, my dream is one, that entangles itself into a mental root of challenges to, get into Harvard at the age of 14,en route the SAT. Of course, this does not qualify me as a freshman to the SAT. Not many 13-year-olds are able to take such a rigorous test that tests one's academic performance as that of the SAT. However, I started taking it since I was 5 years old. Not many 13-year olds have reached an intellectual pathway upon which they are able to sit in college courses. Such a case was not to be mine, however, for I started sitting in college classrooms at 7. Not many 13-year-olds have the privilege to code fluently in 12 different languages. However, I started programming at 9 and built an interactive physical robot at the age of 11. I want to skip middle and high school not because I'm looking for a royal path to Harvard but because I want to earn exactly four Ph.Ds. in four different areas—Mathematics, Physics, Computer Science, and Chemistry—respectively from Harvard, MIT, Oxford, and Cambridge before I turn to 30-years-old. I need to earn four Ph.D. because by forty I want to solve four problems : String theory, Dark Matter, Quantum computing and making Fusion a reality. And from 40 years to my last day, I will work toward achieving one goal: to create a world where poverty and terrorism flies not through the unhearted streets of Pakistan or France, but instead rests as a forgotten rusted museum display that is a mere entity of what it used to be.

Beginning of **Unique**

Such story this is, one that of spending blistery nights studying, writhing under the skin of hard nights' struggles. Many a time, students hear of the death sentence when they're in middle or high school, but my death penalty had rung long before that, for I didn't procrastinate. More specifically, it began during the summer of Kindergarten, when my mother taught me basic operations, and operations on fractions (i.e. Multiplying mixed numbers, dividing fractions).It was perhaps the same reason why my 1st grade teacher, Ms. Gitelman permitted me to complete all of 1st grade math Homework before the year started. It was in the summer of 1st grade, when my Dad picked me off the dust and roller coasted me, high-school style. It was that year when my

dad started giving me “Baby SATs” to reinforce my math skills. The tests were quite hard, I must admit, as they contained operations with negative numbers,3 digit numbers, long division, as well as converting units & word problems. Around the same time, I had the privilege to frequently visit Professor Jerald Posman, the Vice President of City College, who wanted me to take some college courses. However, that didn’t work out. Nevertheless, I sat in class as a function of his persistent efforts.

The Realm of **Physics**

Second grade was a difficult year for me, as trying to be a 6th grader in a 2nd grade classroom was an ambivalent confliction of both sides. Soon after, however, in 2nd grade, I had a rare opportunity to sit down in two College classes, one with Dr. Michio Kaku (Astronomy) at City College of New York and other with Dr. Daniel Kabat (A calculus based Physics course) at Lehman College. It was because of Professors Kaku and Kabat’s classes from which I learned about string theory and quantum mechanics, which perplexed me. How can a particle be in more than one place in the same time? And I couldn't ever stop thinking light was clever. Ever. If you looked at it, it was a particle and just when you turned your eyeballs around, the beam of light behaves like a wave. I wanted to untwist away the mystery from which was entangled in the proximity of Quantum Physics, deciding to have a Physics degree from Princeton-for my hero Albert Einstein was a professor in Princeton. In fact-my affection for Professor Einstein is so deep that it led me to visit his home, located in Princeton, numerous times. This is why I decided to pursue my Physics degree from Princeton. It was also the same year when I delved into Cosmology & my dream resurrected to become the same one it is to this day-to become the **First man on Mars.** Toward the end of the two courses, I realized that Mathematics was the language of science.

The Realm of **Mathematics**

Soon after, came the summer of 3rd grade, which I’ll go so far as to dub it “My Dream Year”. My dad had started teaching me the Python programming language. Soon, however, he got a job and stayed away for nights at a time. Of course, this was also the same year when I sat in Dr. Nikola Lakic’s Calculus-II class at Lehman College, which allowed me to see the hidden relationship between math and physics. It also led me to ask questions such as why Sir Isaac Newton-my number 1 hero-had to invent calculus. Dr.Lakic had told us he invented Calculus to solve the Falling Moon Problem - I asked myself-the falling moon is a physics problem, however solving it

is a math problem. That helped me to accept the hypothesis I mentioned above-*Math is the language of Physics*-which is the primary reason I want to get a Math degree from Cambridge,for my hero was a math professor there. Around that time, while taking my 1st programming lesson from, I realized I needed a tool to solve math & physics problems-which is the very reason I took up Computer Science.

The Realm of **Computer Science**

Soon after, came the summer of 3rd grade, which I'll go so far as to dub it "My Dream Year". My dad had started teaching me the Python programming language. Soon, however, he got a job and stayed away for nights at a time. However, to compensate for his being, he gave showed a programming website one day called khanacademy.com.Salman Khan's computer science vidoes influenced me to such extent that I decided I would get a Computer Science degree from MIT-for Salman Khan himself got a degree in CS from MIT. It was there where I truly delved into programming, learning the p.js 1.4.7 language-in compromise of making myself extremely near-sighted. Third grade soon wished me goodbye and soon came 4th grade mocking at me. In fourth grade, I learned a wealth of CS languages, including HTML5,CSS3,JS,and Java. It was also my first year making math/physics algorithms-for I found it fascinating, and that fascination still hasn't rusted to this day(for I solve most of my math homework in 2 minutes by making a simple algorithm)-for it is splendid upon which you can combine the realms of mathematics and physics with computer science to **create** something that computes with such *precision and independence*-I made a diversity of algorithms with processing JavaScript-including calculating the velocity of a falling ball, finding the acceleration of a soccer ball, some trig algorithms including one that could measure a the hypotenuse of a right triangle as well as identify the type of triangle, and a matrices algorithm that could add, and subtract matrices. I also learned of a troubling problem in the world of Physics & Computer Science: Physicists, Chemists and Computer Scientists alike attempted to replicate the ripples of the "Quantum World" where nonsense is sense, in computers, so that they could process data ultra-fast using quantum algorithms empowered by Q-bits. I decided I would attempt to apply all four features of quantum physics: superposition, entanglement, teleportation and quantum tunneling in order to create a fault free Quantum Computer which will enable me to make Fusion finally a reality. So I decided to pursue another degree in Chemistry.

The Realm of **Chemistry**

It was also the same year when I started exploring Chemistry with Crash Course. However, the deepest inspiration came from watching my little 2 year old brother, Soburno Isaac Bari, solving Chemistry problems with my dad, such as-finding the Atomic Mass of each element from the periodic table. In fact, he became quite well known after the passing the test administrated by Professor Jerald Professor. Sometimes, I myself have to teach little Isaac some chemistry. One day, while teaching him Bohr's Model of the Atom-I myself understood Atoms are the fundamental building blocks of everything in existence. Learning how molecular particles combine to produce literally any substance in the world was quite amazing and it's what inspired me to get a degree in Chemistry, from an Ivy League like Oxford University. I realized that the only perceivable path to executing my dreams was to score a perfect on the SAT-2400/2400.

From Baby-SAT to **the SAT**

Simultaneously, I prepared for the SAT Math Level 1-unfortunately, I got a disappointing score of ~557/800.Of course, such a score was not one to lower the goals I had perceived achieving. So when 6th grade came, I was all ready to take the SAT on Dec.6,2014.I spent months practicing under the eyes of the moon. I hogged any resources at hand, whether they be rusty SAT practice books or new books that my parents bought me. The thought of going to college was like such that of the splendid realm upon which deemed myself one that could not secure a foothold on.By the time I swerved my car and saw the SAT sign just a mile away, my heart was rusted, and my mind, a mere entity of the jewel it used to be. In order to resurrect myself to take the what-would-be-2-days-later-SAT,my dad took me to the NYU Bobst Library to help me prepare for primarily the math section of the SAT, but also for the Writing Section. We took a mound of tests and my scores dipped and rose, and alas, my highest score was 95, up 50 points from the 45/100 I got on my first try. I wrote 2 essays, the first one getting C+ and the next one getting A+. At last, I felt I was ready for the SAT. So in I went, on the 6th of December ready to pawn one of the most infamous tests ever(although I pawned it perversely bad). After 17 Days, my score still didn't come, so we called College Board. The score? An impressive 1520-480 for Reading,510 for Math, and 530 for Writing. Yet, I hadn't found the satisfaction which I had perceived with such a score,so I took the SAT once again on the 6th of June in 2015,and my score improved by up to 120 Points! My Reading and Writing improved by 70 and 50 points,respectively.It was one jolly day and the score brought me into a whole realm of worlds I'd never thought I would explore at such an age-college.

A **Divinely Stitched** *World*

Alas, came 5th Grade and I spent majority of the year creating a website called Leaf Tree to teach people math & science for free, inspired by Nobel Laureate Muhammad Yunus's letter to me when I was 5,I wanted to do something just the same, create free high-quality educational content that even the poor and uneducated can learn, as everyone has the same potential, there is no innate capability in any of us which makes our base starting points unique, for we all start at zero.

Roots of **Chaotic Perfection**

Of course, we must dig back to the roots of the purpose of going to college & taking the SAT in the first place. By the end of 2nd grade, I knew most of 5-6th Grade Math, Science, and Social Studies. I thought, hmm...wouldn't it be great if I just skipped to 6th or 7th grade, because all, I'll be doing between the next 5 years, is dragging myself through the thick mud I had endured twice. This was not the case, however, as I was being educated in a public school. School felt like boring repetition, and I was entangled in the thoughts of something more challenging, more powerful-I always felt I could do more. So, when 6th grade rolled around,I finally decided to make a swift transition from Baby-SAT to the SAT. I was engraved into studying for the SAT-my passport to Harvard.

All in all, mother taught me morals, father taught me motives, little Isaac taught me Chemistry and my four teachers—Professors Posman, Kaku, Kabat and Lakic motivated me to make my dreams come true. And together, I am a divinely stitched masterpiece.