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**Sample essays 2023**

**MIT**

**#0000FF's Joe Walsh**

**Write about someone who has influenced your life or a time that you have experienced great change.**

When life throws me a curve, I try to find an equation for the best-fit line. Actually, life never really throws me a perfect curve, only a series of data that resembles one. Most people are content by connecting these random dots, forming a rudimentary picture by which they interpolate a meaning. But to me, all of that unpredictable, theoretical thought never made as much sense as a good logarithmic function. My mind tries to think in absolutes, in binary, with little extraneous interpretation. I can handle 1's and 0's, but understanding the 2's is what takes effort. Life threw me a big '2' when my older brother passed away of cancer when I was just fourteen. My mind could not construct a logical way to feel. In an instant, my perfect, predictable world was turned upside-down. Feelings of confusion, regret, and sorrow swirled in my head, all of them unforeseen obstacles in my attempts to make a predictable world. Grasping for an answer, I struggled to keep afloat, grabbing any steady truth I could hold on to. I needed to take the zeros and ones of my mind and make a two, a task I could not fathom how to do at the time. What I didn't realize was that sometimes the answer is as simple as '10'. Looking to the life my brother led for inspiration, I saw his courage and strength in the face of adversity and found my ability to grow stronger. After having his leg amputated at the age of six as a result of his first bout with cancer, he lived oblivious to his handicap, continuing to golf, swim, ski, and succeed. In my brother's example, I learned, adapted, and grew stronger. I took the pieces of my binary thinking and constructed a two. Developing a sort of assembly code for my brain, I constructed a solid foundation for abstract thinking in my once absolute world.

Seeing the way this method of thought fit me, I took the binary foundation I started with and synthesized it into more intricate forms. Though I'll probably never be able to predict the actions of the stock market through patterns in pi, my system helps me to analyze the curves that life throws me. I can break down problems and work logically and efficiently towards the solution in ways I never thought possible. I am even able to understand and appreciate literature, a concept that was always just out of my grasp. To me, literature was a world where there was no right answer, no function to relate everything, just some random dots with an infinite number of ways to connect them. Now, instead of disregarding anything without an absolute solution, seeing only right and wrong, black and white, I can finally interpret with all the colors of the rainbow, from #FF0000 to #330066. I want to keep building this analytical knowledge, opening doors and solving problems with a delicate mix of reason and the abstract, connecting the dots in my own unique, yet logical way.

# Ocean Engineering: Uniting Man's Technology with Earth's Beauty Stephanie Groleau

## How are you going to make a difference in the world with your major?

John F. Kennedy stated in his 1961 Inaugural Address, "Let both sides seek to invoke the wonders of science instead of its terrors. Together let us explore the stars, conquer the deserts, eradicate disease, tap the ocean depths..." People in the different fields of science explore and research a wide variety of areas, but are united by their thirst for knowledge. Since the beginning of the human race, man created myths to explain why the sun rises, who the stars represent, and what monsters live in the ocean, always determined to move one step closer to the infinite.

Although most people no longer believe in these stories, the search continues for explanations of natural phenomena. Like Galileo, Kepler, and Cousteau, I am driven by a thirst to discover the unknown and a passion for the beauty of the universe. "The Last Frontier" is no longer the West, but space and the ocean. It is the enchanting and mysterious flora, fauna, and rhythms of the ocean that have pulled me to the field of ocean engineering.

As an ocean engineer, I may help design robots or submarines that may be used to decipher the past by exploring shipwrecks, or to find organisms for medicinal purposes. I may also design sonar devices for use on large ships. These can be used for the detection and protection of whales, dolphins, porpoises, and other marine animals. I will also study hydraulics and the physics of how water movement affects our beaches, structures, and wildlife. This will enable me to design coastal and off-shore structures that are both functional and safe for man and wildlife. Additionally, I will pursue better ways to preserve the earth's resources and help educate people about how to become better stewards of the earth. In ocean engineering, I will be creating innovative tools and advancing man's knowledge of our earth while discovering some of nature's many wonders. In the process, I will be helping to preserve our environment and wildlife so that future generations may experience not only the satisfaction of these new discoveries, but also the beauty of our planet.

# Turning Point Sikder Samiur Rahman

## Describe an experience that has shaped your life, and affected who you are today.

The day before it happened, my father and I went to the historic Bangladesh vs. India cricket match at Bangabandhu National Stadium. It was Bangladesh's 100th international match-thousands of people attended. We were in the stands, intently focused, fervently hoping for an upset. My father was so enthusiastic that he seemed like a fellow teenager. When Bangladesh defeated India for the first time ever, parades and celebrations erupted in Dhaka, the capital of Bangladesh. We went out to dinner with my mother and two brothers to celebrate. That jubilant day turned out to be far more significant in my memory than I had imagined at the time.

The next time I saw my father was when I was rushed to the hospital to see him after school the next day. He had taken ill, I was told. But when I arrived, his body was already draped in a white cloth. My father, the invincible Director General of the Ministry of Foreign Affairs of Bangladesh, had died of a sudden heart attack at work. Seeing him dead felt like the end of the world. My family and country were shattered. One day your father, a national figure, is vibrant and involved, and the next day, he is lifeless and carried away. Nothing would ever be the same. "Your father would have wanted you to continue working hard at school," my mother urged. "And that is how you can honor him."

The mourning period in Bangladesh is 40 days. Two weeks later, however, were the 10th grade exams, and my mother insisted that I take them. I returned to class just four days after my father's death. Determined to honor him, I studied with newfound dedication and resolve. Even with all my relatives in the house mourning, I focused on my studies. In the end, I scored second highest in Bangladesh out of almost 10,000 students who took the mathematics exam. My father would have been proud.

However, our family still felt paralyzed. When the Ministry of Foreign Affairs offered my mother a job at the Consulate General's office in New York, she promptly accepted, even though she had not worked for almost fifteen years. We moved to New York and our world changed dramatically. We went from a big house in Bangladesh to a small New York apartment; from the very public life of a diplomat's family, to a simpler more anonymous lifestyle; from a small private school, to a large, bustling New York City public high school.

I worked hard to make the transition successful and now know that my father would be proud of my results. I am now a senior, aiming to attend my dream college, MIT. Instead of pursuing government diplomacy, I have applied my leadership skills as captain of the Science Olympiad Team and my High School's Gold Medal winning Junior Math Team. I have topped the average of our school's valedictorian, although I will not be ranked because I have attended school here for only a year.

I am not the same person I was the day I went to the cricket game with my father. I have seen how fragile life can be, and have learned how to persevere in spite of great sorrow. I, too, want to serve mankind not as my father did by fostering understanding and communication between nations, but by helping to advance the world's technology, and thereby improving the human condition.

**My Experience in Ecommerce Michael Wainwright**

**Describe a personal experience.**

My mother often reminded me that nothing good would ever come from playing video games. As a young child, I dismissed her words as baseless propaganda to coerce me into doing more chores. After all, I was having plenty of fun catching Pokemon on my neon purple GameBoy; and isn't fun good for its own sake? I was always the traditional good student, receiving excellent grades and performing well on standardized tests, so my penchant for computer games was seen as the only major obstacle to my academic success. Ironically, my greatest flaw would ultimately allow me to break out of my conventional role as just another passive learner.

My online learning experience began with the multiplayer roleplaying game Diablo 2. It was relatively straightforward, a point-and-click game where I used my characters to kill monsters, gain levels, and collect loot. As a beginner, I took the obvious route to character improvement by grinding away at endless hordes of monsters in order to find unique and rare items. I steadily climbed higher in the ranks, but the laws of diminishing returns brought progress to a halt. Like the majority of players, I was a frustrated peon stuck in the middle class of the Diablo 2 hierarchy.

Eventually, I began to realize that even artificial worlds have economies that can be manipulated. Instead of focusing on the tedious parts of the game that most people get caught up in, I turned my attention to mastering the Diablo 2 economy. I became an expert at trading; I studied market patterns, utilized outside resources like trade forums, and paid careful attention to online news events that might cause price fluctuations. In retrospect, my transformation resembled a self-taught economics lesson, though at the time I was more interested in the fact that all of my characters were equipped with the most powerful gear.

.Economic principles, like buy low and sell high, were second nature to me and I never consciously thought about the intellectual reasons for twisting the supply and demand for certain items at just the right time; I was simply having fun.

As time passed, I adjusted to my new role as online merchant. Instead of signing on to my main characters to monotonously click away at never-ending columns of monsters, I mainly found myself signing on to mule characters (characters created solely for the purpose of storing surplus items) to manage my digital wealth. Rather than scavenging through trade channels and bartering games for hours, I acquired any rare items that I needed by sending a few emails and making a few deals. My trading habits had so completely warped my gaming experience that it seemed like I wasn't playing the same game as most other players. I kept in mind how frustrating, yet still massively popular, the game was to the masses of players who hadn't discovered the secrets of trading.

Having applied real world economic strategies to Diablo 2, I took it one step further by connecting the two economies through eBay. I started listing my extra items for sale on eBay, and soon my eBay business took off. I began to seek cheap item suppliers and connections, eventually developing an intricate business process that catapulted me to the rank of eBay Powerseller Silver Level.

My change of perspective in a favorite pastime allowed me to acquire and apply self taught entrepreneurial skills. With my natural affinity to item trading, my concrete financial success on eBay, and my capability of balancing "work" with other activities like school, running, and bodybuilding, I can easily picture myself succeeding in a world-class economics program.

As for my bewildered mother, now she has no choice but to acknowledge that good things, both material and intrinsic, do come from playing video games.

# Colors of Life Anonymous

## Topic of Choice on the Common App.

Yellow - one of the primary colors. It is one hue; it is a million hues. Pale yellow, the color of silt in China’s River of Life; saffron yellow, the color of Chinese sovereignty for two millennia; tanned yellow, the tint of my skin.

The first day of fourth grade in America, I felt as if I stepped into an aviary full of white birds who chattered in a tongue that I could not comprehend. I began to regret and even resent my parents’ decision in moving here – nothing’s the same! From the hue of their skins and eyes, to their gestures, speech, activities, and even clothes! And so I embarked on an arduous mission toward conformity. In the second week, wearing my first Gap outfit, I strutted into my homeroom, assured that my clothes would garner acceptance and new friends. Instead, come lunchtime, I wandered amongst the throngs waiting for an invitation that never came. Likewise, I remember frantically trying to translate the deluge of English around me, and in turn, haltingly reply.

Puberty splattered crimson pimples on my face and murky shadows on my confidence. My awkwardness intensified as my family, during our first six years in America, moved six times to three cities. But to lessen my parents’ worries, I often hid my frustration. After all their efforts for my happiness, how could I appear otherwise? They also continuously reminded me that indeed one could never change her color. Inversely, the diversity present in the world actually vivifies life.

It was as I settled into my skin that I finally saw beyond the visible colors, to glimpse the vibrancy within. Through clubs, sports, music, and even the simple gestures of caring and community, I began to blend in amongst the colors of my friends. Our conversations flowed easier, and our laughs freer. Through our camaraderie in difficult times or enjoyment in simply being together, their colors began to shift before my eyes - they themselves embodied unique hues, born of a million and one moments in life. By marveling their differences and sharing their similarities, I foster a stronger confidence in myself, assured in my abilities to adapt and thrive. I now heartily appreciate my itinerant years when I have witnessed the true beauty of diversity, embellished by the inimitable colors of life I have beheld along the way.

Striking as a lone color may be, the blending of colors is breathtaking. The harmony of colors inside myself and outside in my environment gives me life. I am one color, I am a million colors: I am the yellow of China, black of certain confidence, the red of dedicated passion, the blue of invariable peace, green of newborn imagination, the pink of brisk youth, the white of hope - a full palette. I dream not of a rainbow, but of a future. Wherever I may wander, I will never be lost.

# Proving myself to... myself Anonymous

## Life brings many disappointments as well as satisfactions. Tell us about a time in your life when you experienced disappointment, or faced difficult or trying circumstances. How did you react?

I thought I had it all figured out when I began high school. My future, I was convinced, was in psychology—a field that has always fascinated me and seemed to be a promising career choice. Before specializing in psychology in college, I planned to focus on my science and math classes and to take part in as many science-related extracurricular activities as possible.

Unfortunately, not everything goes as planned. The problem I encountered was that I soon lost confidence in my ability to do well in science and math classes. My sophomore chemistry class was an especially frustrating experience, thanks to the combination of a confusing textbook, an uninspiring teacher, and my own self-doubt. Instead of loving science and math, I began to be intimidated by those subjects. While once they stimulated my imagination, they now became associated with disappointing test results, pressure to perform well, and personal insecurity.

Despite all this, I slowly decided not to give up on science and math. My junior physics class, which I enjoyed far more than chemistry the year before, helped me overcome my mental blocks and realize that my problem was lack of confidence, not lack of ability. An even more important turning point was my participation in the Junior Engineering Technical Society (JETS) TEAMS competition, an event in which students compete to solve engineering problems. In the days leading up to the competition, I was terrified. I dreaded the difficult problems that loomed before me, and I was convinced that I had not done enough to prepare. Even though I had aced the practice problems that our teacher had given us, I attributed my success to luck and worried that I would let my teammates down.

The way that the competition unfolded, therefore, was a complete shock to me. As I began completing the daunting multiple-choice test, I realized that I knew how to answer almost every question I looked at. Over the next few hours, I worked at full throttle, filling my calculator and scratch paper with calculations and confidently answering each problem. Filling in bubbles had never felt so good. Ultimately, I gave an excellent personal performance and my team won first place in the entire competition.

Although my team’s victory was very gratifying, the greatest benefit of winning the competition was the opportunity it gave me to learn so much so suddenly about myself. I found out that my misgivings about my ability to do well in science and math were baseless, and that I am just as capable of excelling as my talented schoolmates. Even in a hectic competition, where time is short and pressure is high, I am able to succeed when I put aside my doubts and apply my hard-earned knowledge and skills.

In the months since the JETS competition, my newfound confidence has displayed itself in several ways. I continued to thrive in my junior physics class. I carried out independent research projects on the effect of caffeine on mental performance and on the function and physiology of the dreaming brain, and developed my enthusiasm for neuroscience. I entered the American Association of Physics Teachers Photo Contest and won a prize for my picture of smoke rising from a burning incense stick. Most importantly, the dreams with which I entered high school seem attainable again. I now know not to let my doubts dampen my passion for psychology and neuroscience, or anything else that I decide to pursue.

# Think Fast! Tony Ping

## Tell us about the most significant challenge you’ve faced or something important that didn’t go according to plan. How did you manage the situation? (200 to 250 words)

It was broken. Teams were gathering in the gym for the regional Science Olympiad competition and my electric vehicle sat useless on the cafeteria table. The motor simply would not spin, even though the lights said the circuit was on. The competition was 12 minutes away. I looked around at the teams surrounding me and saw coaches advising their students in huddle circles. Hardcore students with emotionless faces were polishing their cars for the start line. I knew that if I were to compete, I needed to fix my car quickly. I referenced my circuit board diagrams to check for loose connections and using a multi-meter to check for continuity. I checked to see if the batteries were fresh and that the motor wasn’t jammed. I sped up my work, replacing the motor belt and drive shaft. Still nothing had changed; the motor stayed stubbornly silent. 4 minutes left!

My nerves caused me to accidentally spin my hand up into the air, flipping the car onto its backside. Wincing with pain, I bent down to pick up the car and the root of the problem glared me in the face. One of the copper circuit board traces was missing; therefore, no current could get to the motor. I soldered a jumper onto the connection and lined up at the start line. Through my own quick thinking and a fantastic moment of luck, I turned an otherwise doomed situation into a shining first place medal.

# Unexpected Creativity Anonymous

## Tell us about a time you used your creativity. This could be something you made, a project that you led, an idea that you came up with, or pretty much anything else. (200-250 words)

During the art camp’s Bead and Wire Sculpting class, a fish-shaped frame with wires running across it caught my eye. “Carly, what’s this?”

“An earring holder,” the freckled girl announced. “But I want it to stand up.”

We built a half-dozen wire bases, experimenting with a different techniques; without fail, each collapsed. Finally, I tried a different approach: a hanger. Using thick copper wire, I constructed a base with a vertical, hooked length attached. The fish dangled from the top.

Carly prodded it cautiously; the hanger wobbled, but remained upright. We both grinned.

I spent that day making many more hangers for an eager audience. As the day passed, the requests shifted. Soon, the girls were adding beaded decorations and wire embellishments, and demanding that I merely cut the wire instead of help them sculpt it.

Outside of volunteering at art camp, I’ve had many opportunities to indulge my creative side: participating in National Novel Writing Month, concocting costumes for anime conventions, redesigning my synagogue’s website…but the hangers were different, though they weren’t my most elegant creation. They served a dual purpose: while Carly got her earring holder, they also engaged the girls, encouraging them to explore beyond traditional jewelry projects. The enthusiasm the hangers generated manifested in numerous creative uses of the extra-thick copper wire.

An “invention” needn’t be breathtaking; it just needs to fulfill its purpose. And to judge from the girls’ smiles, my hangers certainly had.

# I Call It Home Ayantu Regassa

## Tell us about the world you come from.

“I wanna go home!” I say as I sit on the kitchen floor watching my mother cook.

“What do you mean?” she asks, giving me a questioning look. “Ethiopia?”

“I don’t know.”

Home. For most people, the word can be easily defined as the place where they grew up or live now. By that definition, the house in which I have lived for the past seven years would be my home. The problem is, I often find myself saying, “I wanna go home,” while sitting in that very house. The other candidate is the place where I grew up, but that could be either of two places: my home country of Ethiopia or my adopted hometown of Westbrook, Maine. I cannot choose one over the other. For better or for worse, each has shaped the person I am today more than can be expressed in words. Ethiopia is the place where I experienced so many of my “firsts.” Maine is the place where I developed my individuality. At the same time, neither can truly be my home.

Though Ethiopia was my home at one point, it is no longer the same place I knew as a child because I am no longer that child. I can no longer relate to the culture the way I once did. As my sister often tells me, I have become “Americanized.”

On the other hand, I have never felt at home in Maine. The first memory I have of Maine is my first day visiting Reiche Elementary, the school I would be attending. I stood in front of a group of seven- and eight-year-old boys and girls. Every face was pointed at me, every pair of eyes wide and expectant. I grabbed the fabric of my mother’s skirt and buried my face into the side of her leg. These children were all so different. Every child had a skin color different from mine. Though I picked out a few familiar words, I could not understand what they were saying. I knew I didn’t belong there, but there was no chance of hopping on a plane and going back to Ethiopia. I knew that, and the thought terrified me. I had never felt as uncomfortable and uncertain as I did that day.

That day has stayed with me, along with the discomfort and uncertainty. Though the intensity of those feelings has faded, it has not gone away, and it is not likely to leave me soon. I cannot deny, however, that the environment Maine has provided has shaped me profoundly. Living in Maine has made me who I am today just as much as being born and raised in Ethiopia. Ethiopia gave me my cultural and family identity. Ethiopia is the place that comes to mind when I think of my family, since my entire extended family remains there. It is also the place that comes to mind when I think of my motivation, since I was raised in a culture that taught me to give one hundred percent at all times. Yet, the fact remains that I have lived in Maine for nearly ten years of my life. This environment has influenced me more than even I can comprehend. So, the question becomes: which of these places (if either) should I consider my home?

In all honesty, I cannot choose one physical place and give it the title of “home.” Instead, I elect to compose my own definition of home, a definition that does not force me to choose between the two places in which I grew up. My definition allows me to think of home as a place in my mind, a state of mind that enables me to remember my childhood years in Ethiopia and the opportunities given to me by living in the U.S. It has taken a long time to define what home means to me -- and even longer to find it -- but doing so has given me an amazing sense of hope and comfort. In my mind, it is a place where I can escape. It is a place from which I draw strength when life gets too hectic or when I am faced with challenges that seem too great to overcome. It is what I really mean -- what I have always meant -- when I say that I want to go home.

# Real Research Abubakar Abid

## What has been your most profound or surprising intellectual experience? or, Tell us about an experience that has changed the way you view yourself.

I arranged the bottles in front of me: 30% acrylamide, TEMED solution, ammonium persulfate, Tris buffer, and distilled water -- all of the materials I needed to run electrophoresis on the protein samples I had isolated earlier that morning. Oh, and isopropanol to even out the gel, I remembered. I reached for the bottle labeled “99% isopropanol,” but after angling it slightly, I realized that it was empty. I walked to the storage cabinets on the other end of the lab and peered inside. No isopropanol.

I found my mentor in the cell culture room, hunched over a microscope. Spraying antiseptic alcohol on my latex gloves, I hurried over.

“Dr. Wang, we’re out of isopropanol in the lab,” I announced after waiting several seconds.

Still staring into her culture medium, Dr. Wang replied, “Did you sterilize yourself before entering?”

“Yes, I did, with -- with the alcohol over there.” I pointed to a green plastic bottle that lay next to the electronic pipettes.

“The isopropanol is in the cabinets. I showed you yesterday,” Dr. Wang stated.

“I checked there and there’s no bottle of isopropanol. There’s just propanol, but--”

“Really? We’re out of isopropanol?” Dr. Wang finally looked up. “Remind me to place an order.” She returned to her cell culture.

I remained standing there. “So should I--”

“Try using something else. Maybe methanol or ethanol.” She pointed to the green plastic bottle I had used to sterilize my latex gloves. “That might work. Tell me what happens.”

Suddenly curious, I asked, “What about glycerol?” I remembered seeing a tinted glass bottle of glycerol at my work station.

“Sure,” she replied, too busy to notice my exuberance.

That was my second week interning at the Winship Cancer Institute and the third time I had been able to dabble with a standard procedure. The methods I improvised usually did not work. Nonetheless, I enjoyed every opportunity to reinvent laboratory procedures and observe the results.

I have been involved in lab work in biology and chemistry classes since the beginning of my freshman year. However, the experiments in these classes were prepackaged and bland. I was always handed the precise instructions and exact materials beforehand; I invariably knew what results to expect; and consequently, I never discovered anything new. Before long, the excitement I associated with conducting experiments diminished. But the “investigations” in my high school classes were nothing like the research I experienced in the Emory-Winship Summer Scholars Program.

At Winship, I jumped into research with no idea of what results to expect. I met researchers who dug into the unknown for eight hours a day every day, often only to be stumped with indeterminate or self-contradictory data. The postdoctoral researcher who worked across from me once described an occasion on which he analyzed four cells from the same cell line using the same immunofluorescent dye to stain the same protein -- and finished with four entirely different sets of data, not knowing which, if any, was correct. Astonished, as I listened to him, I remembered an experiment from my AP Biology class in which my teacher promised extra credit to whichever group obtained the “best” data regarding the effect of osmotic pressure on diffusion rates.

At Winship, I realized that improvising and compromising were inherent in research, as the ideal materials and procedures were not always known and not always available. Before I even began research into metastatic cell receptors, my mentor informed me that because of financial constraints, I would not be able to use quantum dots to stain the receptors. Instead, I had to rely on the less expensive and less precise dye-coupled antibodies. Although the antibodies initially spat out inconclusive data, by fine-tuning the serum in which I grew the cancer cells, I was able to minimize stain interference and obtain positive immunofluorescence results. But as I labored through the calculations required to produce the correct serum concentrations, I thought back to my AP Chemistry labs, for which we had memorized procedures line-by-line as if they were hallowed scripts. And I realized how little I knew of research before that summer.

Most importantly, at Winship I came to understand the importance of research as a means of gathering scientific information. Before my internship, I always preferred the textbook to the beaker, the conclusion to the hypothesis, and knowledge to speculation. Without a doubt, I had had the scientific method imprinted upon the folds of my brain ever since elementary school, but only after working at Winship did I realize that lab work was required to produce every paragraph of every science textbook I had ever read.

I have always enjoyed learning scientific facts and concepts. But the Emory-Winship Summer Scholars Program instilled in me a love of scientific research: I realized that only by plowing the grounds of research could true knowledge ultimately be reaped.

# Lifeguarding Christopher Olson

## Describe a place or environment where you are perfectly content. What do you do or experience there, and why is it meaningful to you?

With forested hills open to exploration and a lake for boating and fishing, Spring Lake Park has become a second home to me. I come here regularly for a run, a bike ride, or a walk with my family. I have participated in community work days and completed my Eagle Scout Service Project here. But Spring Lake has become more to me than the location of my dreams: I work here as a lifeguard at the Spring Lake Lagoon. When I am on duty, my body is hoisted up into the white, sunburnt chairs, and the lives of those in the musty water are now in my hands. This is my first job, and certainly the most important task in my life; because I am one of few open water lifeguards in Sonoma County, people trust me to save them in water with less than a foot of visibility.

While the pressure of saving lives sometimes gnaws away at me, I am revitalized by the surrounding environment. The rolling chaparral and mirroring lake offset the pressure of preserving the lives of those in the water. The towering redwoods and blanket of fog that enclose the sandy beach provide a sense of seclusion, where I am free from the influences of society. The encircling trails and nearby snack shack filled with lively people establish a cheerful atmosphere where I can leave behind my struggle to maintain healthy relationships with my family and friends. The challenging task to continue my commitment to athletics and further my intellectual pursuits is whisked away with the brisk breeze, while I scan intently, chewing on sunflower seeds, armed with a rescue tube and paddleboard, awaiting the menacing moment that demands a sprint into the clouded water.

During rotation, which can last up to two hours, I ponder what defines me. The busy lagoon stirs with patrons vaulting into the water, playing pass, and roughhousing; their energetic squeals and splashes put the lagoon into a state of chaos. My pensive expression hides behind reflective blue shades where I relive the excitement of the child building sandcastles, the thrill of the friends partaking in a swim race, and the happiness of the toddler collecting rocks from the shallows. All the while I watch and anticipate the worst.

Code Green: the phrase lifeguards announce over the intercoms at Spring Lake to indicate that an emergency is in progress. Being in the break room while this happens means an all-out sprint with a 60 pound medical backpack across the lagoon. Adrenaline fuels me while bolting out onto the sand with all that weight strapped on. The victim’s pulse, level of consciousness, blood pressure, and physical state (among other vitals) are all that matter. The conclusion of an emergency marks a transition from anxiety to tranquility and the day continues, as the next crisis looms.

As the day winds down and the shadows creep across the lagoon, preparations for closing begin. All is silent when I carry the equipment in across the beach. The lagoon is empty. The patrons have packed up and vacated their once bustling picnic areas. Only footprints blemish the sand. All that is left is calm, motionless water and a crimson sunset, darkened by the redwood silhouettes. When the shadows recede and the sun reappears, I come back to find the sand neatly groomed and familiar equipment put back on the chairs, as if nothing had happened the day before. Thus, the cycle continues, with the enriching environment and demanding job that maintain a delicate balance in my life.

# The Beauty of Percussion Jonathan Monahemi

## If you could only do one of the activities you have listed in the Activities section of your Common Application, which one would you keep doing? Why? (Required for all applicants. Approximately 100 words)

Immediately after placing the finishing touches on my homework, I grab my headphones and rush downstairs to the small, confined room that stows my drum kit. I proceed to “jam out” to a plethora of music, including Jazz, Rock, and Samba. The endless combinations of grooves and fills that I produce with each stroke invigorate my soul.

Many people do not notice a drummer’s every hit, intentions, or mistakes. The subtleties within each percussion composition craft a unique and esoteric language. Each day, the waiting drums lure me back into my small, sealed, paradoxically infinite room.

# Redefining My Purpose Through Slam Poetry Anonymous

## Describe the world you come from; for example, your family, clubs, school, community, city, or town. How has that world shaped your dreams and aspirations?

The stage lights burst open, blinding and white. I trembled. I was at the citywide poetry slam, Verselandia, about to perform in front of hundreds.

Earlier in the month, I had qualified through my high school’s contest, which I had signed up for because, “Hey, there might be free cookies!” (There were not.) At the time, I didn’t know much about spoken word artistry except from street performers (this was downtown Portland, after all). But I practiced in front of my mirror, my friends, and my faithful stuffed animals. Ultimately, I placed first at school.

At Verselandia, I watched others deliver lyrics about abuse, racism, and feminism. A few talked about their LGBTQ+ identities; one addressed bisexual erasure, which I could personally relate to. Slowly, I realized that writing didn’t serve just as a cathartic outlet; it could startle others into empathy and create awareness. When my turn came, I delivered lines like “Your heritage is more than an exotic enigma.” Afterwards, several of my Chinese-American classmates told me they could relate. I realized that my writing had the power to give these experiences visibility, which in turn might help erase damaging yet common preconceptions about my ethnicity.

As a Portland Youth Poet Ambassador, I have opportunities to not only promote creative writing, but also advocate for social equality. This is the narrative I live. Through poetry, I want to depict not only a narrative from a person of color, but also a narrative of a queer person of color--a perspective too often neglected the media, but too important for me ever to remain silent.

# The Third Shot Steven Michael Wang

## Some students have a background or story that is so central to their identity that they believe their application would be incomplete without it. If this sounds like you, then please share your story.

On any given dusky afternoon, I find myself asking the pressing question: Will I make it a third time in a row? I raise my arms, examine a dulled orange orb clinging to my aching, sweaty palms, and squint at the near-invisible net. Far from aspiring to become an NBA player, I use my recreational basketball skills as a daily relaxing ritual. I fall into a rhythm, a fluctuating combination of layups, free throws, and outbursts: "3...2...1!" I imagine shooting the game-winning basket in the last seconds of my coliseum game. But, no matter how tired I am, my workouts always end the same: three baskets in a row. Of course nobody is there to enforce this law, but it feels wrong to leave without accomplishing this arguably foolish task.

My tendency to set arbitrary goals serves as a sort of closure for me. Seeing the third basketball swish through the net evokes such a euphoric feeling; it represents a consistent end. I admit it - I need closure. I enjoy stories with a beginning and ending; I furiously research movies that end with cliffhangers after watching them; I demand answers to unsolved problems: Is there a universal cure for cancer? How can we stop aging? Where do we come from? It thrills and perplexes me that explanations currently unperceivable to the human mind will someday answer such questions. Therefore, I approach each pursuit as a basketball challenge I have to complete: knowing I will miss many shots along the way, I will persist until I make my magical three and reach a conclusion that satisfies.

While the third swish of the net is always an enjoyable sound, my true satisfaction from this self-imposed three-shot test stems from the journey the basketball takes: the perfect backspin, the initial angling of the shot, and the beautiful arc of the ball's trajectory. Likewise, the most meaningful aspect of my search for closure lies not in the actual discovery of the truth, but in the arduous journey of reaching such a conclusion. It's within these journeys that I expand my perspectives and understand new viewpoints through interactions with other individuals. In my search for technological ways to alleviate human suffering, for example, I've started to question the meaning of "impossible" after interacting with Mick Ebeling, an inventor who 3D prints prosthetic limbs. Like every three-shot challenge, no pursuit I undertake is ever the same. I have the opportunity to stretch my perspectives to great lengths in any direction I choose, to learn from the untapped memories and experiences of unique individuals. It all exists within the journey.

So will I make three-in-a-row tonight? I raise the basketball up in the air and fling it with calculated force. As I watch the illuminating orange sphere twirl in the air, I remember that my need for closure transcends the final conclusions I reach. Each question I seek to answer holds a journey, an arduous mid-region to traverse, that will inevitably expand my viewpoints, values, and beliefs. The ball swivels on the rim before finally dropping into the white mesh. A day's journey has ended; a new one has just begun.

# Fighting as a Legend Anonymous

## Some students have a background, identity, interest or talent that is so meaningful they believe their application would be incomplete without it. If this sounds like you, then please share your story.

1,2,3,2…1,1,2,5…1,6,5,3…at first you have to remember each combination, which move is next, but after a while it becomes instinctive: in a bout you don’t have time to think. Despite boxing’s bad rap for being barbaric, it’s long been known as the “sweet science” — every move is carefully calculated. Its beauty lies in its simplicity: the principles of physics and the kinetics of the human body. So almost every movement—defensive and offensive — in boxing has the same foundation. A left hook (3) or a slip to the right (dodging an opponent’s left strike by dropping to the right side) both set you up to deliver a right handed blow or an evasive slip to the left. A left upper cut (5) can lead to a pivot to avoid an opponent’s punch, or to deliver a right hook, or punch. Each movement builds from the last and prepares for the next. It is like walking: after extending your left leg and right arm, you then continue with your right leg and left arm. This seems automatic to us but it wasn’t always, which you know if you’ve ever watched a baby attempt his first steps. It’s the same with boxing: right then left, then right then left. Even if you punch with your left hand twice, say a 3,5 combination, you still rotate your right shoulder forward between the two punches to prepare for the next left handed punch.

I originally started my martial arts studies with tae kwon do. I switched to boxing because of the personalization of the sport — every boxer has a unique style; there are no strict rules. It also comes in handy to know how to defend yourself when you could be seen as a typical Jewish day school student. I was drawn to boxing too because of the intense preparation and dedication it requires — long conditioning, the endless practicing, and tough sparring— all for 540 seconds. To be a good boxer you must start from the bottom and work your way up: your stance, how to walk around a ring, your first two punches, defense, and then putting it all together. You need a strong foundation.

The main aspect of boxing that sets it apart from other sports is the instant feedback loop, telling you that you are doing well or that you aren’t doing so well — a punch is informative. One day I was throwing some punches on the heavy bag, finding my form, when I noticed another boxer, older and quite experienced (who didn’t speak a word of English), watching me. He came over, held my bag— a nice gesture —and when I shot out a straight right (2) he clocked the left side of my head. It was his way of telling me, jumping the language barrier, that I was dropping my left too much. I don’t do that anymore.

We (boxers) are like debaters; each fighter knows what they want to accomplish, and has practiced going about it, but reacting to your opponent is the key to winning. Too many people believe boxing is just a pair of brutes hitting each other back and forth until one is finished. But there is so much more to it. When thinking of the greatest fighter of all time, Odysseus comes to mind — it’s not because of his massive strength (Ajax has him there), but rather his agile mind. When juxtaposed with Achilles, he makes it obvious that fighting is a mental sport which is only incidentally physical, and that’s the beauty of the sport for me.

# A Beacon of Engineering Anonymous

## Describe the world you come from; for example, your family, clubs, school, community, city, or town. How has that world shaped your dreams and aspirations?

At my home, it sometimes feels like “angle of refraction”, “thin films”, and “escape velocity” are as common as “hello”, “thank you”, and “go to sleep”. That's what you get when your parents are both professors in engineering. When I ask a single question about the notes I took on the Bernoulli principle, my parents give me a lecture as if I were enrolled in their course

A large majority of my friends share an interest in computer science and programming, inspired from a young age by our close proximity to Microsoft’s headquarters. At school, it’s as if English was their second language, with their native tongue being binary. In short, it feels like science, technology, and the mathematics have become a quintessential part of my life today, despite my much greater passion for humanities and the social sciences.

When I secured my joint internship at the University of Washington’s business school and its “Sensors, Energy, and Automation Laboratory”, it was as if I had found the best of both worlds. I’ve been given the opportunity to not only draft commercialization plans and crowdfunding campaigns for new technology, but also to help with designing the medical drones and voice-recognition software themselves, for a plethora of clients including the US Department of Defense and the National Health Institutes. I want my future to be centered on business, but I want to continue within an environment where scientific interfacing permeates daily life. MIT has become my beacon, one that can guide the way through this life of inquiry.

# Small in Size but Big in Heart Anonymous

## If you could meet a character from a book or a historical figure, who would it be and what would you ask them? (200 words)

“Oh d-d-d-d-dear, dear!”

Among the lush trees of the Hundred Acre Woods, a little stuffed pig named Piglet searches for his friends. Despite being a tiny ball of anxiety, he displays remarkable amounts of compassion and fortitude whenever his friends are in distress.

I would like to meet Piglet from A. A. Milne’s Winnie‑the‑Pooh because even though he is the smallest among his friends, Piglet has the biggest heart and displays exceptional loyalty to those around him. Since self-perception is so important in how one overcomes challenges in life, I would ask him about how he learned to embrace his quirks and remain courageous even when facing his harshest critic: himself.

Whether he is helping his friends capture frightening Heffalumps and Woozles, or rescuing them out from under a fallen treehouse, Piglet shows that true love and heroism can come in tiny packages. His personality fascinates me because although he quivers and stutters often, Piglet demonstrates a profound sense of bravery through both his acts of kindness and his many exciting adventures.

# Innocent Until Proven Guilty Anonymous

## At MIT, we bring people together to better the lives of others. MIT students work to improve their communities in different ways, from tackling the world’s biggest challenges to being a good friend. Describe one way in which you have contributed to your community, whether in your family, the classroom, your neighborhood, etc. (200-250 words)

“Innocent until proven guilty” does not apply within the perimeters of Youth Court.

As a diversion court for juvenile misdemeanor crimes, our job is not to determine a defendant’s ‘guiltiness’, but rather solely to prescribe an appropriate sentence. More striking than the program’s unique focus on a restorative justice model is the involvement of teenagers—mere students—in the court process. From the jury to the judge, each courtroom role is filled by the defendant’s peers.

In six years, I’ve taken on every possible role—juror, bailiff, clerk, advocate, and judge—but I’ve had the strongest attachment to my role as the defense advocate. It’s been the only position where I’ve been able to meet the defendant and actually listen to their first-hand accounts—stories that are often stereotyped and framed into narratives they didn’t create.

I aspire to share these stories with others in the courtroom, but have always been careful to avoid a “savior complex”. I know that my role in the process has never been to ‘fix’ the structural problems I’ve observed in some of the families, nor has it ever been my place as an outsider to offer anything outside of the courtroom. I only hope that the stories I’ve brought to the forefront have caught the attention of a few jurors.

And for me, that’s enough, because community service isn’t always about making a tangible change. Sometimes, it’s about making small steps towards bringing a society closer together, to a mutual understanding of one another.

# Push, Slide, and Repeat Anonymous

## We know you lead a busy life, full of activities, many of which are required of you. Tell us about something you do simply for the pleasure of it. (100 words or fewer)

Living between a large hill and the flat space of an empty parking lot makes for the perfect skateboarding terrain, temporarily gifting me with wings as I fly down the incline without a helmet, falling into the soothing rhythm of push, slide, push, slide.

I take a deep breath, absorbing fresh air and a panorama of my surroundings, usually a glowing yellow-orange but occasionally a deep blue-black.

Sometimes I watch the sun rise with the early birds, feeling both small and powerful to be the only one observing nature’s wake-up call.

Everything’s going to be okay.

# The Apartments Anonymous

## At MIT, we bring people together to better the lives of others. MIT students work to improve their communities in different ways, from tackling the world’s biggest challenges to being a good friend. Describe one way in which you have contributed to your community, whether in your family, the classroom, your neighborhood, etc.

Six or seven years ago my family purchased, for pennies on the dollar, a couple of foreclosed-upon rental properties in Silver City, a rough but budding Old Milwaukee neighborhood. When we first walked through the behemoth relics of the 1920s, we stepped over missing floorboards, skirted shattered glass, batted away cobwebs. The mailman told us parts of stories of the dog-fighting arena formerly hidden away in one of the buildings; false walls and reinforced doors told us the rest.

Every free Saturday that I can remember has been spent at the ‘Apartments,’ painting doors and hanging drywall and building flower boxes and picking up garbage and pulling weeds and scrubbing floors. After a busy school week, it can be difficult to motivate myself to wake up early, put my old ripped Wranglers on, and go to work. My now weirdly extensive knowledge of hydronics and intimate familiarity with all of Milwaukee’s South Side’s taco wagons are, to me, worth the six-day work week.

It’s difficult to be very optimistic when faced weekly with old rusted screens and peeling paint, but even after the longest, hottest, dirtiest days doing jobs we could hardly even pay a worker to do, but it's all worth it. Every sagging ceiling I repair or new cabinet that I install directly contributes to the community’s growth and, more importantly, improves the lives of and provides safe, clean, and affordable housing for the tenants I’ve formed such strong relationships with.

# My Goals and Ambitions Anonymous

## Describe the world you come from; for example, your family, clubs, school, community, city, or town. How has that world shaped your dreams and aspirations?

My father is a mechanic. Therefore I am, by proxy, an unaccredited mechanic, specializing in relatives’ cars, vintage Vespa scooters, and my friends’ bicycles. I've loved our dirty garage from a young age — the sting of growing callouses and the aroma of motor oil appeal to me on a very visceral level compared to other aspects of my life.

Despite my hands-on inclinations, Hardy's "Introduction to the Theory of Numbers" influenced me more than any other book I’ve read. It introduced me to the complex elegance of pure mathematics and the immense influence of mathematical thinking in other fields I was interested in, including physics, philosophy, and music theory. I began collecting calculators and reference tables, reading mathematical journals, conducting independent research, and immersing myself in pure math as fully as possible.

These two loves of mine seemed, for a long time, hopelessly disparate. I was indecisive and stressed about whether I wanted to undertake mathematics or some form of engineering. It wasn’t until a few years ago that I began to understand the underlying logical philosophy of mathematics and realize how its most fundamental principles permeate each facet of life.

I aspire to help bridge the gaps between pure mathematics and the concrete sciences, in order to pursue my passion while still affecting widely-felt change. MIT’s unique standing as a common ground between the pure and applied sciences will prepare me for this pursuit and help me grow into a singularly qualified thinker able to make distinct, meaningful contributions to his fields.

# Ninja Stars or Throwing Knives Stuart Rucker

## We know you lead a busy life, full of activities, many of which are required of you. Tell us about something you do simply for the pleasure of it.

Throwing knives are for hot summer days and for dull Sunday afternoons – for when even the blood in my head has seemingly gone stagnant. This spin on the martial arts pulls me from these doldrums, forcing my mind into discipline. I must estimate the distance from my target, the total number of rotations, and the ideal impact location. Every detail must be finessed.

However, ninja stars are for stressful days, when the world has clouded my mind with thoughts; all I need to do is imprecisely hurl a disk at 400 revolutions per minute into a board. Together, these weapons keep my mind sharp.

# Beach Cleaning Robot Stuart Rucker

## At MIT, we bring people together to better the lives of others. MIT students work to improve their communities in different ways, from tackling the world’s biggest challenges to being a good friend. Describe one way in which you have contributed to your community, whether in your family, the classroom, your neighborhood, etc.

Compared to the stereotypical beach packed with tourists and surfers, New Hampshire’s Hampton beach seemed rather unremarkable. It was like any other New England Beach: cold, empty, and cloudy – just two miles of sand wedged between the road, ocean, and jagged boulders.

Once I joined Exeter Beach Cleanup, though, that beach grew infinitely. What before was only a 20 minute jog transformed into multiple hours of scouring through heaps of seaweed for cigarette butts, potato chip bags, and candy wrappers.

Despite the seemingly infinite amount of effort required to clean the beach, the magnitude of our progress remained in scale. Any sense of achievement was marred by the unignorable truth that we had cleaned only two of the world's 372,000 miles of coastline.

But while my time was limited, that of Beachbot was not. After two friends and I conceived of Beachbot - a wheeled robot that uses an onboard camera and processor to autonomously locate litter, and then collects it using a sifting apparatus – each trip was also a learning opportunity; every piece of trash was photographed and annotated until the vision system could recognize those cigarette butts and bottle caps on its own. Our technical design and detailed business plan earned us spots as finalists in the Conrad Spirit of Innovation Challenge, where we networked with manufacturers and investors. While according to common wisdom, one should “think globally, and act locally,” I hope to act globally as well.

# Jigang's Words of Wisdom Stuart Rucker

## Tell us about the most significant challenge you’ve faced or something important that didn’t go according to plan. How did you manage the situation?

Last summer, I had a 10 week paid internship working for American Traffic Solutions, a toll and ticket processing company. Naturally, I was nervous about working as part of a team of Ph.D.’s in math and computer vision. I learned to deal with the pressure to produce in this corporate environment from my boss, Jigang, who always seemed to have the perfect proverb for any situation.

“Do. Or do not. There is no try.” - I was tasked with automating the vehicle detection process for Washington, D.C. Immediately, I began frantically scraping together whatever code I could, eager to generate results. Jigang, however, stopped me with this 8-word quote. Before beginning, I must have a well-thought out path that I truly believe will work in the long-run.

“Take things as they come.” - My job grew more stressful around week 6 when I began to realize that my processing percentage (percent of the images which the algorithm deemed possible to automatically classify with sufficiently high certainty) wasn’t approaching the targeted value due to particularly crowded roads. This obstacle, I learned, should not be a cause of stress. As long as I work intelligently and communicate my difficulties, I can confidently stand by my work.

“Breathe.” - Certainly, I have faced more unpleasant situations than sitting at my desk in an air-conditioned office building. Nevertheless, the lessons I learned from this experience have helped me deal with stress and pressure in all aspects of my life.

# A Special Session of Physics Tutoring Anonymous

## 4. Describe a problem you've solved or a problem you'd like to solve. It can be an intellectual challenge, a research query, an ethical dilemma - anything that is of personal importance, no matter the scale. Explain its significance to you and what steps you took or could be taken to identify a solution.

“Ridiculously disrespectful,” I mumbled to myself. I’d just seen two students stealthily looking into their desks, utterly disinterested. Shocked by their distracting whispers, which rose above the sound of my voice and the harsh scratches of my marker against the whiteboard, I kept writing solutions as if I’d seen nothing, my anger growing. My responsibility was to the class… Turning back again––on the brink of losing composure––I, and 22 other students in the room, stared squarely at Jimmy and Zack, now blatantly speaking at normal volume as they played video games! As class tutor, I couldn’t tolerate such insulting behavior. Apparently my lesson on Kepler’s Laws interrupted their “strategizing.” But I didn’t know how to control the situation as eyes turned on me.

Emotionally, I found myself thrust back into a classroom at thirteen. My deskmate, Jessica, teased me for being short, making me cry. The class’s meddlesome, snarky whispers mocked my breakdown as I just stared at the ground to avoid eye contact. Later that day, I complained to my social science teacher, expecting her to assign me a new desk partner. How could she not? Jessica was the bully. My voice trembling and legs shaking as my teacher did nothing and encouraged me to instead self-reflect whenever I felt uncomfortable again. Why? Her answer stunned me: Jessica claimed she’d been bullied. I walked home stunned, pondering how that could be.

“Jimmy and Zack!” I yelled sternly, demanding their silence that instant. No such luck. Zack stormed out of the classroom, offended by my reprimand, accusing me of not being the authority. I instinctively ordered him back to no response. He was gone. Jimmy, on the other hand, stayed, but not because of my reprimand, but because his attendance was a detention requirement. He unabashedly continued playing, ignoring me. Everyone was surprised at how I’d reacted, and even though Jimmy’s phone noise and audible reactions resumed, I tried my hardest to keep tutoring, to dedicate myself to the lesson and the others. But my thoughts raced, my emotions swirled, I realized I’d lost control, I’d lost my authority and connection. What happened was the exact opposite of what I’d intended.

After class, I immediately visited the head teacher's office to complain. But as she responded, my mind was miles away, when suddenly, I remembered my social science teacher’s words, “Be responsible for controlling others’ perceptions of you.” I didn’t know exactly how, let alone what the reactions would be. But I had to. That night, researching ceaselessly online, I watched demonstration classes to see how other tutors instructed. The ones I gravitated towards weren’t simply lecturers but conversation facilitators. They didn’t command students; everyone shared information.

As I changed the format of my classes to emulate collaborative seminars, I became a more passionate instructor, no longer a routine task-master. Before long, the classroom came alive, excited students wrote complicated derivations neatly on scratch paper. I’d successfully earned others’ respect by giving them a platform to engage. As I continued tutoring by dividing the class into small groups that year, the head teacher recognized me, my classroom behavior and instruction becoming more bold, more energetic, my heart finally winning the battle against self-doubt.

From these experiences, I discovered a way of being that I applied often. When I faced doubt from my robotics team co-leader, Steve, regarding differences in how we’d address a fatal flaw in his robot design plan at 80% completion, we openly discussed the issues diplomatically and I got him to feel comfortable inviting others’ without titles to have their opinions to be heard as well, making us a more united and efficient group. That one change in attitude made us VEX Worlds finalists. To this day, I always self-reflect. It’s become my mantra, and I believe that fostering strong team chemistry, rather than commanding, is what earns a tutor, team leader, and decent person respect.