## **Short Questions**

#### Identity

In connection with its Affirmative Action Plan, the Massachusetts Institute of Technology guarantees equal opportunity in education to students of all racial and ethnic backgrounds.

Please tell us more about your cultural background and identity in the space below (100 word limit). If you need more than 100 words, please use the Optional section.

I'm an Asian female. More specifically, both my parents are in mainland China. I lived an urbane life in the modern city, Shanghai, until 18. I had been very much into classical Chinese philosophy, especially Confucius's view of morality. I proudly identified myself as an East Asian. After 18, I identify myself as multi-cultured, as I explored Hong Kong (university), New York City (internship), Tokyo (internship), Taiwan (one-semester exchange), Cambodia (1.5-month volunteer), Boston (MIT special student), Maldives, France, Switzerland and Italy (traveling). Living in different places developed my appreciation, along with critical thinking toward every culture.

# Include a key to your high school's grading system (for grades other than traditional A-F grading).

If there is anything else we should know about the grading system, include it here as well.

There are two key gradings in my high school. One is the High School Academic Proficiency Test of Shanghai, China (a certificated soft copy submitted below). This is standard test conducted by education department of Shanghai. I got straight As for all subjects.

The other is our school's grading in 0-100 scale (a sealed copy sent to MIT). This is a reflection of both grades and participation in class every semester. A point to note is that in my school, different subjects are graded differently. Usually, grades around 90 are in the 95th percentile, but for example, Chinese is generally graded lower. My Chinese grades, 88~92, are 99th percentile in my school. Mathematics is also graded very toughly, so grades around 90 are about 98th percentile.

## Have you taken, will you take, or have you received credit for introductory biology? \*

Yes

No

Clear

#### Additional comments

For my university, Biology is not required in the curricula of the Computer Science major.

However, I took 2 years of Biology in middle school and 1 year in high school. I had always been in the 95th percentile in my school in Biology.

I got an A in the High School Academic Proficiency Test (Biology) in Shanghai, China.

### **Additional Information**

No application can meet the needs of every individual. If you think that additional information or material will give us a more thorough impression of you, please include it here. (Optional)

(1) Fact -- "2.5 years in college"

I understand the requirement of MIT transfer application. I am now taking a leave of absence from my university, so I am not enrolled in the university in the 2nd semester of my junior year.

For your information, so far, I have completed 2.5 years in my university (3 semesters at the University of Hong Kong, 1 semester exchange at National Taiwan University, 1 semester as a Special Student at MIT in EECS, and now taking a leave of absence this semester).

The required essays consist of four short-answer response questions (250 word limit). Remember that your essays are not a writing test. They're the place in the application where we look for your voice - who you are, what drives you, what's important to you, what makes you tick. Be honest, be open, be real - connect with us. That's all that matters.

About reference letter: get the people who know you the best. It should show your research ability + personal traits + care about community and people.

How does MIT align with your goals (e.g., academic, personal, career, extracurricular, etc.)? (200-250 words) \*

I'm very passionate about making people's lives better with the help of computer science.

I've lived in and travelled to many countries (Hong Kong, China, Japan, Cambodia, Taiwan, Maldives, Italy, Switzerland, France, United States, etc.). Exposure to various cultures makes me think deeply and critically about how people perceive the world under the effect of their culture circles and how they are invisibly constrained. For example, Japanese people observe a strong group-oriented culture. People act polite even though it refrains from their own desires. Women are expected to serve their husbands and family rather than have ambitious careers. People within a certain culture circle usually cannot think out of the box. I am interested in combining computer science with the study of the cultural patterns according to scientific analysis of people's behavioral data.

For example, Natural Language Processing (NLP) is a very handy tool. When I was taking 6.864 Advanced NLP as a Special Student in Fall 2017, I was very touched by how NLP can effectively analyze sentiment, extract information, and transfer styles. People can actually analyze millions of texts and extract important information, such as how Facebook posts reflect social trends. I'm more interested in studying how one's culturally-biased knowledge base interacts with the natural language. This can have many applications in education and social study. I wish this can potentially improve the psychological well being of society.

At MIT, I feel closer to my dream because the school provides me with deep knowledge, quick study pace, and profound thinking. The semester here was academically and mentally rewarding. Also, the amazing professors and creative, hardworking students make me feel this is the ideal place for dreams.

Please discuss why you are considering transferring from your current college or university. (200-250 words) \*

I am very grateful to my home university; however, MIT and my home university are different in many aspects.

My primary concern is academic opportunities. The Computer Science courses at MIT are of better quality. I learned machine learning from scratch in the beginning of last semester. But by the end of 6.036 and 6.806, I was able to implement techniques from several papers and use machine learning to complete my 6.100 project on self-driving cars. Additionally, in 6.806, Professor Barzilay introduced about 10 guests to give presentations on their newest research. These guests gave me a lot of insight into state-of-the-art models and inspired my final project. These high-quality teachings/exposures are very precious to me.

Another advantage of MIT is the unique student community here. The many smart, interesting friends I have at MIT color my life. In Fall 2017, I lived at Tau Epsilon Phi, and it really felt like home. My FSILG friends did interesting projects like hanging a huge net from the ceiling, programming our huge LED board, and building a huge drum head above a speaker. The most enjoyable moments were squeezing in people's rooms and chatting about all kinds of topics, from how colored lights interact with the three receptors in the eye to whether it is legitimate to permit three-person marriage.

In conclusion, MIT provides a smoother path to research for me. Also, I like the many "crazy," ambitious people here, and I wish to be one of them in the embrace of MIT.

At MIT, we bring people together to better the lives of others. MIT students work to improve to 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) \*

When I was a high school student in Shanghai, I volunteered at a kindergarten for autistic children in my neighborhood. It was very challenging because autistic children are very introverted and have certain learning disability. For example, one of my classes was to teach four autistic children to play easy games. One game was to walk from one side of the classroom to the other and fetch a ball. However, this is not an easy task for autistic children because they do not "perceive" natural language easily. They might stick to their own "world" and not understand what you have told them five times. As a result, I had to be very patient and use more action instead of language to attract their attention. Moreover, some kids would burst out crying and hitting things in the middle of the class. I had to calm them down gently and many times keep hugging them throughout the class.

I kept doing children-related volunteer work in the university. In my freshman year, I went to Cambodia and taught at an elementary school for 1.5 months. I ate local street food, commuted by motorcycle, and lived in such a tropical place without AC or hot shower, but being surrounded by inquisitive local children felt better than everything else.

It was challenging experiences to teach kindergarten autistic children and to volunteer in Cambodia, but nothing felt better than being able to help children in need. They are the hope for a better future world.

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

Last winter, I interned at the Japan office of Vega Global, the largest AV/IT provider in APAC. As an assistant to country manager, one of my tasks was to establish an internal website in 20 days, for my supervisor to track every team's progress.

However, I had no experience developing websites before. The main challenge was to learn independently, without a teacher, without class materials. I asked myself: What if I were in an CS class? How would I master it? The first step must be to understand the basic terms and "common sense" in the network field, which I could solve by reading good online notes. Next was the practical problems, usually solvable by online guides and discussions on forums. I was once really stuck on customizing some code snippets in the configuration file because I had never used the PHP programming language. The website kept crashing for a few days. Nonetheless, I stayed positive and kept looking for solutions. Finally, I established a web server, developed several versions of the intranet website, and also created an internal wiki. I stayed overtime a lot just because of passion to solve the problem.

Communication was also essential to the task. I consulted frequently with my boss to make sure his needs, the IT people to figure out our server structure, as well as employees in the sales and project team to make sure the website was user-friendly.

Eventually, the internal website increased work efficiency for our office. What I learned from this challenge was also memorable. Not only did I master technical knowledge about website development, but I also learned how to solve a problem, as well as to keep confident, persistent and passionate.

The MIT Special Student Program challenged me because of the fast study pace and new environment. For many specific classes, most students already had a strong background before they got to class. But I didn't.

However, I adjusted in two ways: maximizing my Circle of Control and minimizing my Circle of Concern. (In The Seven Habits of Highly Effective People, Stephen Covey introduces the concept of Circle of Concern and Circle of Control. The Circle of Control is the area that we

have control over. The Circle of Concern is the area that we have no control over, but we can deal with our negative concerns.)

However, I developed strategies both objectively and subjectively.

Objectively, I tried to make efforts smartly. For a very challenging course 6.806, for example, I first consulted some PhD students to ensure that its workload is achievable for me. I also spent a remarkable amount of time learning -- usually working out math equations for algorithms, as well as tons of programming. Moreover, I often communicated with others. My peers sometimes inspired me in just a few words. I also raised many questions to the professor in class.

Subjectively, I kept my confidence high. When the assignments seemed too hard at first sight, I kept assuring myself I could do them. My hardest assignment throughout the semester spanned two weeks, during which I stayed at Athena Clusters every night and morning. But eventually, I made one of the best-performing models in class. Also, I tried to stay focused, avoiding distractions from parties and Youtube videos. I put the most effort on things I wanted to achieve, either my project at Media Lab or my challenging classes on machine learning.

In retrospect, I really enjoyed the classes and project. At the end of the semester, when I did a tech interview with Baidu, I was more self-confident than ever before. The challenging learning process made me grow both academically and personally.

Internship Japanese

Comments: