* Have you had any extenuating circumstances (such as limited course selection, inconsistent grades, or disruptions), that have affected your coursework, but that are not described elsewhere in your application? If so, tell us about them here.

**I am a IB Diploma candidate. The IB Diploma Programme is the most rigorous path of courses, projects, and service requirements in my school.**

**Theatre has been a significant passion of mine since the beginning of high school. Unfortunately, due to scheduling conflicts arising from my participation in the IB Diploma Programme, I was unable to continue taking theatre classes from 11th grade onward. This same conflict also prevented me from enrolling in a debate class during my 12th-grade year as well as pursuing the IB-level economics course. Nevertheless, despite not formally being enrolled in theatre or debate classes, I remain connected to the theatre department and continue to lead the debate team. Furthermore, I am committed to enrolling in a non-IB economics class to further my understanding in this subject.**

* Some Caltech applicants engage in STEM competitions locally, nationally, or internationally (e.g., AIME, Science Olympiad, International Science Olympiads). If you have received any STEM honors or awards, list them here (with scores, if applicable).

FIRST Robotics Competition 2022-Present (International): FIRST District Engineering Inspiration Award, Team Sustainability Award, and 2x General Motors Industrial Design Award; 2 out of 2 times state championship qualifier.

Vex Robotics Competition 2021-Present: Vex Worlds Inspiration All Star Award, State Amaze Award, and 13+ other Vex Robotics Competition trophies; 2 out of 2 times world championship qualifier.

Combat Robotics 2022-Present (Local): 3rd place at regional competition.

Veterans' Pin Design Challenge 2022 (National): Future Engineers Veterans' Pin Design Challenge Finalist.

Houston Resilience Design Challenge 2021 (Local): National Wildlife Federation's Houston Resilience Design Challenge $750 Prize Winner

National Merit Scholarship 2023 (National): Finalist Qualifier - results pending.

Ambition Accelerator 2022 (National): Ambition Accelerator Top Voted Idea; "Inspirational" - Mark King (Taco Bell CEO); $1500 Prize Winner.

University Interscholastic League 2023-Present (State): 6th place in UIL Math, 3 out of 3 time UIL robotics state championship qualifier ranking up to 3rd place.

Rise Scholarship 2022 (International): Rise Scholarship Program Finalist

Fusion 360 Certified User 2023 (International).

OSHA-10 General Industry Safety Certification 2022 (National).

Industry Talk host at Autodesk University 2023 (International).

Guest Speaker at Vex Robotics World Championship 2022 (International).

* Why did you choose that area of interest? (200 words max)
  + In 2022’s FIRST Robotics Competition, my team and I were tasked to craft a robot capable of shooting large balls into a small 9-foot-high hoop. Through astute design, iterative engineering, and meticulous fine-tuning, our robot not only worked, but surpassed our own abilities! Witnessing our creation outperform its creators showed me engineering’s enchanting potential. Today, my sights are on goals that extend beyond conquering robotics tournaments. I aspire to pioneer robots, tools, software, and concepts that have the power to improve the world. To realise this vision, I understand that I must propel myself forward, refining my skills, expanding my knowledge, and amassing invaluable experience. To help me in this endeavour, I want to double-option (double-major) in CalTech's mechanical engineering and computer science degrees. I want to enrol in these programs because they share my values for being not just a platform to learn but an opportunity to immerse myself in a culture that thrives on pushing boundaries. The hands-on approach filled with prototyping, research, problem-solving applications and the building of a changemaker’s mindset at CMU will allow me to make solutions that once again pass our own boundaries, tackling the world’s unsolved problems.

In my long-time robotics journey, the first time I saw my creations truly boast their potential was in the 2022 FRC competition. That year, our team was tasked to craft a robot capable of collecting and launching large balls into a small 9-foot-high hoop. Through iterative engineering, clever programming, and meticulous fine-tuning, our robot not only worked, but surpassed our own abilities! Witnessing our creation outperform its creators emphasised engineering and computer science’s enchanting potential.

Today, my sights are on goals that extend beyond conquering robotics tournaments. I aspire to pioneer robots, tools, software, and concepts that have the power to improve the world. To realise this vision, I understand that I must propel myself forward, refining my skills, expanding my knowledge, and amassing invaluable experience. To help me in this endeavour, I want to double-option (double-major) in CalTech's mechanical engineering and computer science degrees. I want to enrol in these programs because they share my values for being not just a platform to learn but an opportunity to immerse myself in a culture that thrives on pushing boundaries. The hands-on approach filled with prototyping, research, problem-solving applications and the building of a changemaker’s mindset at CalTech will allow me to make solutions that once again pass our own boundaries, tackling the world’s unsolved problems.

**There wasn’t any one defining moment on my journey from young LEGO-player to Autodesk Engineering Conference Guest Speaker, rather, it was a long series of broken parts, programming glitches and tiny victories that showed me the enchanting potential of engineering and computer science.**

**However, today my sights are on goals that extend beyond conquering robotics tournaments and winning trophies. Instead, I aspire to pioneer robots, tools, software, and concepts that have the power to improve the world. To realise this vision, I understand that I must propel myself forward, refining my skills, expanding my knowledge, and amassing invaluable experience. To help me in this endeavour, I want to double-option (double-major) in CalTech's mechanical engineering and computer science degrees. I want to enrol in these programs because they share my values for being not just a platform to learn but an opportunity to immerse myself in a culture that thrives on pushing boundaries. The hands-on approach filled with prototyping, a lot of research, problem-solving applications, and the building of a changemaker’s mindset at CalTech will allow me to make solutions that once again pass our own boundaries, tackling the world’s unsolved problems.**

***There wasn’t any one defining moment on my journey from young LEGO-player to Autodesk Engineering Conference Guest Speaker. Rather, it was a long series of broken parts, programming glitches, and tiny victories that showed me the enchanting potential of engineering and computer science.***

***However, today my sights are on goals that extend beyond conquering robotics tournaments and winning trophies. Instead, I aspire to pioneer robots, tools, software, and concepts that have the power to improve the world. To realise this vision, I understand that I must propel myself forward, refining my skills, expanding my knowledge, and amassing invaluable experience. To help me in this endeavour, I want to double-option (double-major) in CalTech's Mechanical Engineering and Computer Science programs. I wish to enrol in these programs because they resonate with my values of being not just a learning platform, but also an opportunity to immerse myself in a culture that prides itself on pushing boundaries. The hands-on approach at CalTech, brimming with prototyping, research, problem-solving, and the atmosphere of a changemaker's mindset, will empower me to devise solutions that extend beyond our boundaries, thereby helping me to push myself towards tackling the world's unique, unsolved issues.***

* At Caltech, we investigate some of the most challenging, fundamental problems in science, technology, engineering, and mathematics. Identify and describe two STEM-related experiences from your high school years, either in or out of the classroom, and tell us *how and why they activated your curiosity. What about them made you want to learn more and explore further?* STEM experience/activity # 1 (200 words max)
  + As the Captain of the DiscoBots Robotics Teams, one of my main tasks is to lead our teams to victory in various robotics competitions. I find this process of engineering, programming, and iteratively improving our robots in preparation for competition to be my most enjoyable activity. And while numerous other high school teams also embarked on this quest, the hurdles we encountered were uniquely ours to conquer. No one wielded the same tools, materials, or team dynamics. Each group navigating distinctive constraints and possibilities where success meant not just mastering a task, but unraveling a solution to a never-solved-before problem. It wasn't merely about making robots that score balls into a hoop, climb monkey bars, ascent poles, or aim frisbees; it was about unveiling unknown possibilities and crafting solutions to unique challenges, an aspect that beckons me to push the possibilities of myself, my peers, and what we are given.
  + Robotics is my main passion, my future career, and my medium to change the world. The always-unique challenges and reliance on the honing of one’s ever expanding expertise irresistibly draws me towards the CAD models, 3D printers, programming interfaces, manufacturing tools, and competition fields each day. Additionally, being the captain of an international competition robotics team over so many different domains, develops my creativity, collaboration, and discipline. As I pursue and lead the Discobots to the world championship title for hours each day, I realize that not only am I building the robot, but the robot is also building me.
  + In essence, the captivating allure of robotics isn’t solely rooted in building robots; it lies in unraveling the unknown, in crafting innovative solutions to challenges that defy convention. This pursuit of uncharted territories propels me further, igniting an insatiable curiosity to delve deeper into the realms of possibility, both for myself and the field of robotics as a whole.
  + Robotics is my main passion, my future career, and my medium to change the world. I largely practise robotics through robotics competition with the DiscoBots Robotics Teams. As the captain of the DiscoBots, one of my main tasks is to lead our teams to victory in our various robotics competitions. I often coordinate and lead across 6+ schools to compete at an international level. And while countless other high school teams are also embarking on this same quest, the hurdles we encounter are uniquely ours to conquer. No robotics team is identical to another in terms of tools, resources, or team dynamics. In this way, we are all navigating distinctive constraints where success is not just mastering a taks, but unravelling a solution to a never-solved-before problem. It wasn’t merely an act of making robots execute functions like scoring balls into hoops, climbing monkey bars, ascending poles, or aiming frisbees, rather, it was the aspect of unveiling unknown possibilities that drew me towards the CAD models, 3D printers, programming interfaces, manufacturing tools, and competition fields each day. In essence, the reason robotics captivates me is because it lies in teh pursuit of revealing unknowns and crafting solutions to novel challenges.

**Robotics is my main passion, my future career, and my medium to change the world. One of the ways I immerse myself in robotics is as the captain of the DiscoBots Robotics Team. My primary role is to lead our teams to victory in our various robotics competitions. While countless high school teams are also embarking on this quest, the hurdles we encounter are uniquely ours to surmount. Each team operates within distinctive constraints, be it in tools, resources, or team dynamics. Thus, our odyssey entails navigating uncharted territories where triumph isn't merely about mastering tasks; it's about unravelling solutions to previously unsolved problems.**

**Beyond the spectacle of making robots execute functions—be it scoring balls into hoops, scaling monkey bars, ascending poles, or launching frisbees—it's the exploration of uncharted possibilities that beckons me towards developing CAD models, orchestrating 3D printers, delving into programming interfaces, and operating manufacturing tools every day. For me, the allure of robotics lies not merely in executing impressive tasks but in the profound journey of unravelling the unexplored and crafting solutions to novel challenges. Knowing that I am designing, building, or programming through our own unique path fills me with the thrill of curiosity and excitement.**

***Robotics is my main passion, future career, and medium to change the world. One of the ways I immerse myself in robotics is as the captain of the DiscoBots Robotics Team. My primary role is to lead our teams through the challenges of our various robotics competitions. And even though numerous other high school teams undertake the same quest, the obstacles we each encounter are exclusively ours to overcome. Each team works within its unique constraints of tools, resources, or group dynamics. Thus, our odyssey entails navigating uncharted territories where triumph isn't just about mastering tasks; it's about unravelling solutions to previously unsolved problems.***

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* At Caltech, we investigate some of the most challenging, fundamental problems in science, technology, engineering, and mathematics. Identify and describe two STEM-related experiences from your high school years, either in or out of the classroom, and tell us how and why they activated your curiosity. What about them made you want to learn more and explore further? STEM experience/activity # 2 (200 words max)
  + At the end of my 11th grade, my progress on my RAN invention had already outgrown the school’s tooling machines and local library’s 3D printer. Realising this, I remembered the ION Prototyping Lab, a prototyping facility that Mr. Jesse Bounds (from the Mayor of Houston’s office) had toured me through. After some emailing, networking, and meetings, I was able to set up an arrangement where I could use the IPL’s machines and materials in exchange for my work as an intern. At first, I was grateful because of my newfound access to better machines that could take my invention further, however, I was soon grateful for something more.

Starting off, one of the main tasks I took was to restore an old, non-functioning industrial CNC machine for the IPL. I volunteered to take on that challenge because I knew CNC machines are very valuable in manufacturing scenarios, but I never actually had experience with one. In addition to this, I also started getting involved in their showcase projects like their humanoid robot and their general-purpose robotic arm. Tinkering with a new tool and problem-solving with a new community of engineers, sparked a thirst in me that kept seeking for more explorations. The community of IPL can be felt like a change in the air as I step through their door. Being surrounded by that technological, independent, problem-solving aura made this ongoing internship one of my most fascinating experiences that keeps bringing me more.

* + **Towards the end of my 11th grade, my progress on the RAN invention had already surpassed the limits of our school's machinery and the local library's 3D printer that I had been prototyping from. Realising this, I remembered the ION Prototyping Lab, a makerspace facility I had toured with Mr. Jesse Bounds (courtesy of the Mayor of Houston's office). Through emails, networking efforts, and meetings, I managed to secure an arrangement: access to the IPL's machines in exchange for contributing as an intern. Initially, it was the prospect of using superior equipment that thrilled me, but soon, I discovered a deeper source of gratitude.**

**My first significant task involved resurrecting a dysfunctional CNC machine for the IPL. Understanding CNCs’ immense value in manufacturing contexts, I eagerly embraced this challenge despite lacking experience with CNC machines. Meanwhile, I also participated in their showcase projects, like their humanoid robot and 3D-printed robotic arm. Tinkering with this new tool and problem-solving with a community of engineers sparked a thirst in me that kept seeking for more explorations. This ongoing internship has become one of the most enthralling experiences of my life, constantly sparking my curiosity to learn from a powerful community.**

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The creativity, inventiveness, and innovation of Caltech's students, faculty, and researchers have won Nobel Prizes and put rovers on Mars. But Techers also imagine smaller scale innovations every day, from new ways to design solar cells to how to 3D print dorm decor. How have you been a creator, inventor, or innovator in your own life? This question can be answered as a written response (max 250 words).

Last May, a teacher asked me to help dispose of some plastic dividers. Originally used as u-shaped COVID-19 tabletop barriers, they were now collecting dust and taking up storage space. Although they were meant for disposal, their straight, thick, and clean plastic sheets made me hesitate to throw them away. At this moment, the idea struck of taking them to use as stock material for the robotics team instead. This was especially useful since the supply chain crisis was affecting our team’s delivery of materials. In this way, I decided that each divider, once a pandemic safety fixture, can now bolster the engineering classroom’s and robotics team’s arsenal of materials.

After taking the teacher, I enlisted the help of Guillermo to help carry the 7 dividers. I knew picking Guillermo was a good choice because out of all the robotics team members, he was the only dedicated 10th grader, and 10th graders had already finished their exams (so it was more likely he could help me during this class).

Arriving a few minutes after my message, his face marked recognition at the sight of the plastic “my teacher has a bunch of those too!”. After we moved them into our robotics room, he mentioned “while we are both out of class right now, and there are still 20 minutes left, let’s see if we can grab some from my teacher as well.” When arriving to his teacher, not only did he give us his dividers as well, (now making a total of 12), but he was interested in our work and reasoning behind this activity. Inspired by the teacher's interest, I requested his help in our initiative by telling us where we could find a few more dividers, and he assured me he would think about it.

The next day, I found 4 new emails in my inbox from various other teachers asking me to clean their closets of the dividers. Turns out, Guillermo’s teacher had sent a call for dividers across the whole 10th grade department. By the time school ended on that day, we ended up with almost 40 dividers recycled, and the ‘Screen Salvagers’ project was born. From that day forward, Guillermo and I were able to assemble a team of collectors and a steady stream of more hidden COVID Dividers. Additionally, an administrator later found out about our actions and was able to guide us by pointing out more sources of waste plastic in school signboards that we were able to use.

Till now, we have been able to collect 400+ pounds (180+ kg) of polymethyl methacrylate (PMMA), polycarbonate, and other plastics which have found a second life in structural robotics and engineering education applications in our school. Reflecting back on this ongoing journey I can see that our success came from many branches of collaboration. My initial teacher’s willingness to collaborate with a high-schooler’s impulsive idea, Guillermo’s contribution through his helping hand and his proactive teacher, that teacher’s acceptance of my request, our teammates who decided to join the mission, and many other teachers’/admins’ furthering of our collection.

Last May, my teacher requested help in disposing of COVID-19 tabletop dividers. Despite their intended disposal, the straight, sturdy plastic sheets sparked an idea for these dividers to be repurposed as stock material within our robotics team, easing our supply-chain-crisis-induced resource shortages.

First, I sought assistance from Guillermo, a dedicated sophomore of our robotics team. His willingness to lend a hand was crucial, and as we transported the dividers, Guillermo's recollection of similar dividers in another teacher's storage sparked an impromptu idea to expand our exploration.

Approaching Guillermo's teacher, we not only secured additional dividers but also piqued her interest in our endeavour. She later made a call asking for dividers to the whole 10th-grade department leading to a domino effect and an administrator even directing us towards other sources of plastic waste like discarded school signboards.

Reflecting on this ongoing journey, it's clear that our success stemmed from a ripple effect of collaborations with my peers, teachers, and administrators. This network allowed us to expand our impact by tackling communication, manpower, and logistic barriers.

Through these collaborative efforts, we eventually evolved into the 'Screen Salvagers' project, gathering a team to further our collection. So far, we have saved over 400 pounds of polymethyl-methacrylate (PMMA) and polycarbonate that have found a new life in our school's past, current, and future engineering projects.

**Last May, a teacher asked me to help dispose of some plastic dividers. Originally purchased in 2020, the U-shaped COVID-19 tabletop barriers were now collecting dust and occupying storage space. However, the thick, straight, and pristine plastic sheets they were made of gave me pause from throwing them away immediately. I realised their potential once I remembered the supply-chain-crisis-induced resource shortage in the robotics team. Thus, I ventured on the idea to turn the former pandemic safety fixture into a new supply of stock material for the robotics team.**

**My first step was enlisting a friend’s support. While transporting the dividers to the robotics room, his memory of similar dividers in another teacher's storage led to a domino effect of teachers and administrators directing us towards more dividers and other sources of plastic waste like discarded school signboards.**

**Through these collaborative efforts, we eventually evolved into the 'Screen Salvagers' project, gathering a larger team to further our collections. So far, we have saved over 400 pounds of polymethyl-methacrylate (PMMA) and polycarbonate that have found a new life in our school's past, current, and future engineering projects.**

**Reflecting on this ongoing journey, it's clear that our success stemmed from a ripple effect sparked by an initial innovation. This experience was especially meaningful because of the essence of innovation where we solved our pandemic-induced material shortages with pandemic-induced material wastage! Recognizing the dual challenges of material waste and supply shortages unexpectedly birthed a win-win solution, leaving an expanding positive impact.**

***Last May, a teacher asked me to help dispose of some plastic dividers. Originally purchased in 2020, the U-shaped COVID-19 tabletop barriers were now collecting dust and occupying storage space. However, the thick, straight, and pristine plastic sheets from which they were made gave me pause from throwing them away immediately. I realised their potential when I remembered the supply-chain-crisis-induced resource shortage in the robotics team. Thus, I ventured onto the idea of turning the former pandemic safety fixture into a new supply of stock material for the robotics team.***

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***Through these collaborative efforts, I eventually founded the 'Screen Salvagers' project, gathering a larger team to further our collections. So far, we have saved over 400 pounds of polymethyl-methacrylate (PMMA) and polycarbonate that have found a new life in dozens of our school's past, current, and future engineering projects.***

***Reflecting on this journey, it's clear that our success stemmed from a ripple effect of collaboration sparked by a meaningful initial innovation: we solved our pandemic-induced material shortages with pandemic-induced material wastage! Recognizing the dual challenges of material waste and supply shortages unexpectedly delivered a win-win solution, forging a novel path of positive impact that is still ongoing today.***

* Caltech's mission – to cultivate learning, discovery, and innovation for the benefit of humanity – relies on its community members embracing our Mission-Based Values, which include:

1. Openness and enthusiasm for having preconceptions challenged

2. Respect and appreciation for the idea that, while we are all members of the same community, the opportunities we've had to develop, showcase, and apply our talents have not been equal

*3. Passion for the ideal that science can and should meaningfully improve the lives of others*

Choose one or more values to reflect on. Select all that apply: Share what one or more of these values evokes for you. (max 400 words)

I wince as I realise what my younger brother’s next comment will be, but it's too late for me to stop it. “100 rupees! That’s so cheap, it’s like less than 2 dollars! You cannot even buy anything with that in the USA.”, he insensitively boasted to our cousins after seeing the prices on the menu we sat at the local restaurant. The menu was in rupees because my family and I were on our regular summer trip to India where we spend 2-3 months reuniting with extended family and friends. Out of all my extended family, my parents were the first to leave their home cities, let alone the entire country of India. From India, we moved to Singapore and lived there for 8 years, then shifted to the USA, but my parents always kept me deeply connected with my Indian heritage. These various cultures exposed me to recognize many societal differences. I knew that while my brother and I enjoy exploring 3D printers, high-speed internet, and an agglomeration of high-tech adventures, my cousins experience frequent electricity outages and not even a laptop to code on. While I enjoyed project-based and hands-on education, my cousins’ homework was to rotely memorise passages and copy down maths sums that they didn’t even know. The difference especially hurt when they would always congratulate me on my recent tournament victories because my mother would announce them on the family whatsapp group chat while I knew that they didn’t have even close to a similar opportunity.

My brother’s oblivious remark bothered me because I’ve had the experience with the shorter straw as well. For example, in my robotics competitions there are always teams that come from affluent private schools next door to big industrial sponsors and countless for-hire mentors. Or in debate tournaments where the wealthy teams have personal electric stands to charge their laptops and hordes of coaches ready to assist where necessary. All those luxuries compared to our inner-city public school where we struggle to make sure the student-to-teacher ratio is not undefined (due to divide by 0 error) gave my competitive mind many frustrations. This was especially true when my team and I came across insensitive competitors who offhandedly mentioned their team buying thousands of dollars of motors ‘just to have spares’ or students who complained of their school not providing the latest surface pros while our school didn’t even give a laptop. Competition resources imbalances are, admittedly, not at the same scale as systemic societal inequalities (especially since our team is not even in as worse of a condition as a lot of others), but is still an opportunistic disparity.

Through my experiences of both being on the greatly fortuned side and also being the less fortunate side along with being blessed with a multicultural perspective, I am grateful of the wide perspective that allows me to recognise and reflect on the opportunistic inequalities that determine many resounding outcomes. From all this, I don’t quite have the solution to this situation, rather, I’ve learned to push aside uncontrollable factors like these and focus on the aspects I can influence. Whether from my robotics tournaments, debate competitions, or even looking from my cousins’ perspective, I hope we can all take our own actions under control to squeeze the water from the stone, just like my parents did when they left home.

**"100 rupees! That’s so cheap, it’s less than 2 dollars! You cannot even buy anything with that in the US," my younger brother boasted, as he read the prices on the restaurant menu, unaware of the insensitivity I saw in his words. We were on our customary holiday trip to India, a time reserved for reconnecting with our large network of extended family and friends. Amongst that whole extended family, my parents were the only ones to leave India, settling first in Singapore for eight years before moving to the USA.**

**These transitions exposed me to stark societal differences: while my brother and I used 3D printers and high-speed internet, my cousins experienced frequent power outages, let alone laptops for coding. I receive a fun, rewarding project-based and hands-on education, while their school imposes rote memorization and no thought of real-life application. The contrasts especially stung when my cousins would always congratulate me on my tournament victories after my mother would announce them on the family WhatsApp group-chat while I knew that my cousins didn’t have similar opportunities.**

**My brother's remark struck a nerve because I've navigated unequal footing myself. In robotics competitions, affluent private-school teams flaunted thousands of dollars that were ‘just for spares’, a world apart from our inner-city public school with limited support. Similarly, in debate tournaments, wealthier teams competed with an army of mentors, while our school ran on volunteer teachers. Admittedly, these competition resource imbalances pale in comparison to systemic societal inequalities, but they remained significant examples of opportunistic disparities that impacted my perspective.**

**I am thankful for my multicultural experiences, straddling both fortunate and less fortunate circumstances, that have cultivated a wider, more nuanced perspective. These experiences have taught me to recognize and contemplate the opportunistic inequalities that influence significant life-paths. From these, I've learned to divert my focus from those uncontrollable factors, homing in on aspects within my sphere of influence instead. Whether it's from the vantage point of robotics tournaments, debate competitions, or viewing the world through my cousins' eyes, I aspire for us all to seize agency over our actions, much like my parents did when they changed their destiny by daring to take their journey.**

**Ultimately, I strive to extract lessons from these diverse encounters, embracing the challenge of navigating disparities and fostering a mindset where mastery over our actions becomes our advancing asset.**

***"100 rupees! That’s so cheap, it’s less than 2 dollars! You can’t buy anything with that in the US," my younger brother boasted as he read the restaurant-menu’s prices, unaware of the insensitivity I perceived in his words. We were on our customary holiday trip to India, a time reserved for reconnecting with our extended family and friends. Amongst the extended family, my parents were the only ones to leave India, first settling in Singapore for eight years before moving to the USA.***

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***My brother's remark struck a nerve because I've navigated unequal footing myself. In robotics competitions, affluent private-school teams flaunt thousands of dollars of unused spare parts, a world apart from our inner-city public school with limited support. Similarly, in debate tournaments, wealthier teams compete with an army of for-hire mentors while our school relied on volunteer teachers. Admittedly, these competition resource imbalances pale in comparison to systemic societal inequalities, but they remained significant examples of opportunistic disparities that have impacted my perspective.***

***These experiences have taught me to recognize and contemplate the opportunistic inequalities that influence significant life-paths: I respect my cousins’ resilience in the face of their limitations; I admire my parents’ determination in transforming their destiny. Additionally, these insights have inspired me to act in ways to improve some situations. For example, as captain of the DiscoBots, I founded outreach programs to find schools without robotics resources and incorporate their students into our team. Within just 1.5 years of this initiative, we have integrated 4 schools and ~6500 students now have the opportunity to benefit from the robotics education that I have thrived from.***

***Ultimately, I’m thankful for my diverse experiences that have cultivated a wider perspective. Whether it's from the vantage point of competitions, my family's experiences, or outreach efforts, I continue to cultivate a mindset that embraces these differences in our backgrounds to grow as a community together.***

along with my opportunistic head start that came from my parents' success allowing me to live in a different country, I also got another benefit: a wider perspective. Reflecting on my brother’s comment, I know that not only is he 5 years younger than me but he had far less experience with seeing other cultures and noticing inequalities.

Later that day, when I got a chance to talk to my brother alone, I tried explaining to him how we were in a fortunate scenario but there is no need to brag. He understood surprisingly well.

This occurrence happens in reverse as well.

If there are aspects of your life or social or personal identity that you feel are not captured elsewhere in this application, please tell us about them below. (max 150 words)

* + **When doing my college research, Caltech stood out to me because of this quote on the ‘about’ page: “Nobody at Caltech disappears into their disciplinary pigeonhole—you constantly learn what is new in other fields and share what is exciting in your field…”. This line struck a chord in me because interdisciplinary learning is my forte; whether in the robotics team, theatre, taekwondo, or more, many of my proudest accomplishments stem from leveraging diverse blends of abilities. For instance, my Pedal Power community project— a stationary bicycle that charges one’s electronic devices through their own pedalling —required the fusion of scientific concepts, engineering skill, artistic design, computer modelling, persuasive communication, and relationship-building that brought the project to fruition. This project, famous in my school for encouraging exercise, demonstrating off-grid power solutions, and raising awareness of electricity wastage, epitomises my belief in tackling substantial challenges through a synthesis of interdisciplinary skill sets.**
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* When not surveying the stars, peering through microscopes, or running through marathons of coding, Caltech students pursue an eclectic array of interests that range from speed-cubing to participating in varsity athletics to reading romance novels. What is a favorite interest or hobby, and why does it bring you joy? (max 100 words)
  + **Engaging in Taekwondo training and competitions has evolved into a cherished pursuit for me. As a teenager, I recognize the importance of my physical well-being, adhering to the adage 'healthy body, healthy mind'. Acknowledging the paramount importance of nurturing and elevating my health, I've embraced Taekwondo as my primary athletic endeavour. The perpetual pursuit of enhancing my speed, power, agility, flexibility, and stamina is profoundly gratifying as it signifies my commitment to cultivating a resilient and healthy physique. This journey not only brings me joy but also instils a fundamental habit of self-care that I'm dedicated to upholding.**
  + ***Training and competing in Taekwondo has evolved into a cherished pursuit for me. As a teenager, I recognize the importance of my physical well-being, adhering to the adage 'healthy body, healthy mind'. Admiring martial artists’ full-body strength and control, I've embraced Taekwondo as my primary sport. The perpetual pursuit of enhancing my speed, power, agility, flexibility, and stamina (and climbing in the ranks of belts) is profoundly gratifying as it signifies my commitment to cultivating a resilient and healthy physique. This journey not only brings me joy but also instils a fundamental habit of self-care that I'm dedicated to upholding.***
  + Participating in Taekwondo training and competitions has developed into one of my favourite activities. As a growing teenager, I try to keep a focus on my physical fitness to follow the ‘healthy body, healthy mind’ philosophy. I recognize that maintaining and improving my health is a crucial matter. To help with this, I have taken up Taekwondo as my main-focused sport. Continuously pushing my speed, power, agility, flexibility, and stamina brings me joy because I know I am investing in a crucial habit to maintain my body.
  + Participating in Taekwondo training and competitions has developed my character while allowing me to direct focus to one of the most important priorities of anyone’s life: their health. My body is my interface between myself and the world, it is my only vessel of experience, so I make it a serious matter to develop it as best as possible, and take great care of it. By continuously improving my speed, power, agility, flexibility, and stamina, especially at my crucial age, I ensure that I develop the discipline and habits required to maintain a long and healthy life.
* Did you have a hard time narrowing it down to just one interest or hobby? We understand – Caltech students like to stay busy, too – tell us about another hobby or interest! (max 50 words)
  + **At the heart of speedcubing lies the pleasure of personal growth. I marvel at competitive solvers who breeze through within 5 seconds while my best is only 28.3 seconds. Speedcubing reminds me to savour the journey at my own pace through the incremental improvements along the way.**
  + ***At the heart of speedcubing lies the pleasure of personal growth. I marvel at competitive solvers who breeze through within 5 seconds, while my best is only 28.3. Yet, beating my records and learning new techniques fills me with gratification, reminding me to savour the journey at my own pace.***