

**GOYAL, SOUMIL** 

FY, RD, Fall 2024, 02/08/2006 CEEB: 443405 CAID: **36268514** 

FERPA: Waived

Submitted: 01/03/2024

# **Profile**

### **Personal information**

Name GOYAL, SOUMIL

**Share different name** No

**Birthdate** 02/08/2006

# **Contact details**

**Email, Phone** soumil.goyal@yahoo.com.sg, +1.832-212-5160, Mobile, No other

telephone

Permanent address 1415 Bonnie Brae St Apt F Houston, TX, 77006-5280, USA

## **Demographics**

Gender Identity

Sex

Male

Pronouns

He/Him

Military status

None

# Language

**Hindi** First Language, Speak, Read, Write, Spoken at Home **English** First Language, Speak, Read, Write, Spoken at Home

Mandarin Speak, Read, Write

# **Geography and nationality**

Citizenship status Citizen of non-U.S. country

Birthplace Mumbai, India 9 years US

Other citizenships Singapore

**Current US Visa** E-2 Dependent of Treaty Investor, 20222298780003 Issued:

1

08/25/2022

# **Common App fee waiver**

Fee waiver requested Yes, Signed: Soumil Goyal

# **Family**

#### Household

Parents Married

**Home** Both Parents

#### Parent 1

**Mother** 

Name Mrs. Dolly Goyal (Mittal)

**Email, Phone** dreamgirl2106@yahoo.com, +1.832-773-9978, Mobile

Occupation Other, Dance Teacher, Self-Employed

**Education** Graduated from trade school or community college

Masters (2002), MKP College, New Road race course, Dehradun,

Uttarakhand, India

#### Parent 2

**Father** 

Name Mr. Ashish Goyal

**Email, Phone** ashigoyal1@gmail.com, +1.281-687-9342, Mobile

Occupation Engineer, Employed, Worley

**Education** Graduated from trade school or community college

Other (1999), Amravati University, New Express Highway, Ram Meghe

Square, Badnera, Amravati, Maharashtra, India

# **Siblings**

Dhruv Goyal, Age 13

# **Education**

# **Current or most recent secondary school**

Mirabeau B Lamar Senior High School, 3325 Westheimer Rd, Houston, TX, USA, Public, CEEB: 443405 (09/2020 - 06/2024)

**Progression** No change in progression

**Graduation Date** 06/2024

# **Colleges & universities**

#### **Grades**

Rank 18 / 755, Weighted GPA 4 / 4, Unweighted

## **Current or most recent year courses**

First semester	Second	semester
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CALC - IB HL AA Mathematics - (IB) CALC - IB HL AA Mathematics - (IB)

PHYS - IB HL Physics - (IB)

PHYS - IB HL Physics - (IB)

LANG - IB HL Mandarin Chinese - (IB)

LANG - IB HL Mandarin Chinese - (IB)

COMPSCI - IB HL Computer Sciences - (IB) COMPSCI - IB HL Computer Sciences - (IB)

ENG - IB HL English Language and Literature - (IB) ENG - IB HL English Language and Literature - (IB)

HIST - IB Psychology SL - (IB) HIST - IB Psychology SL - (IB)

OTH/ELE - IB Theory of Knowledge - (IB)

OTH/ELE - IB Theory of Knowledge - (IB)

HIST - Personal Financial Literacy & Economics - (GFTED)

#### **Honors**

**Inspiration Award, &** 

19+ trophies

Vex World InspirationState/Regional,10, 11, 12All Star Award, FIRSTInternationalDistrict Engineering

2x Debate Nationals Qualifier; 2nd-Ranked Extemporaneous Speaker in NSDA South Texas	State/Regional, National	10, 11, 12
Autodesk University Industry Talk Host (2023)	International	12
Future Engineers Veterans' Pin Design Challenge Finalist	National	11
Ambition Accelerator Top Voted Idea &	National	11

# **Community-based organizations**

CBO 1 Lamar College Corner

**Counselor** Mrs. Cristal Hernandez

Email, Phone Cristal.Hernandez@houstonisd.org

CBO 2 Communities In Schools

CBO 3 Lamar Writing Lab

# **Future plans**

"Inspirational" - Mark King (Taco Bell CEO)

Other, Roboticist, Doctorate

# **Testing**

There is not yet any information to display on this page.

# **Activities**

#### **Robotics**

10, 11, 12 School, Break, Year 14 hr/wk, 40 wk/yr Continue

# Team Captain/President, DiscoBots: FRC, Vex, Combat Robotics, and Outreach Teams

Manage 80+ members & 10 teams to create industrial-level, internationally accomplished robots; made team history in most awards each season.

#### Research

10, 11, 12 Break 3 hr/wk, 20 wk/yr Continue

# Founder/President, Robust Adaptive Network Disaster Response System

Invent & lead a novel solution to disaster response with support of the Mayor of Houston, Taco Bell Foundation, DiscoBots, ION Houston, and more.

# **Athletics: JV/Varsity**

9, 10, 11, 12 School, Break, Year 9 hr/wk, 40 wk/yr Continue

# Other Sport, Black-Belt & Jyokyonim (Instructor), Houston Center For Taekwondo

Learn & compete under the World Taekwondo Federation for sparring, forms, and weapons. Help guide ~10 state-level competing students.

# **Debate/Speech**

10, 11, 12 School 6 hr/wk, 37 wk/yr Continue

# **Team Captain/President , Lamar Competition Speech & Debate Team** Competed nationally; guide 50+ students in NSDA, TXFA, UIL and HUDL tournaments; managed through administration to handle organizational tasks.

# **Other Club/Activity**

10, 11, 12 School 2 hr/wk, 30 wk/yr Continue

## Founder/President, Pedal Power Community Project

Solo community welfare project of off-grid, resilient, and climate aware power generation solutions. Won \$750 from NWF and installed the project.

# **Internship**

11, 12 School, Break 4 hr/wk, 19 wk/yr Continue

#### Intern & CNC Specialist, ION Houston Prototyping Lab

Restored a professional CNC machine for community use; maintained this industrial facility's manufacturing & engineering equipment.

# **Internship**

10, 11, 12 School, Break 2 hr/wk, 30 wk/yr Continue

#### Web Developer/Designer, Steps For Dancing

Learned to design, program, and launch websites; Create and maintain an online presence to help my mother's startup: https://www.stepsfordancing.com

#### **Theater/Drama**

9, 10, PG School 12 hr/wk, 30 wk/yr Continue

# Troupe Officer & Varsity Play Productions Actor, International Thespians Honours Society

Acted in various lead, sub-lead, and technical roles for play productions; coordinated productions, rehearsals, and competitions amongst  $\sim 50$  members.

#### Science/Math

12 School 4.5 hr/wk, 36 wk/yr Continue

#### **Team Captain/President, Lamar Competition Mathematics Team**

Compete at a regional and state level in 3 events; manage and mentor 15+ students in competition, SAT, UIL, and higher-level mathematics.

# **Community Service (Volunteer)**

10, 11, 12 School 1.5 hr/wk, 20 wk/yr Continue

## Den Chief; Patrol Lead (2021), Boy Scouts of America (Troop 55)

Achieved Star ranking in USA's largest troop; Volunteer to guide younger scouts in new skills & activities; organized camps and lessons for my patrol

# Writing

# **Personal essay**

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.

"Let's walk around this way" someone says, but I can't hear them. While all the others are on their detour, I am spellbound by this hulking giant. Its rusty forks unfold with a practiced ease, aligning perfectly with the sleeves of the commercial waste unit. The machine raises this vessel with a confidence born of experience, feeling the weight through the depression of its front-axle suspension. Once ready, it swings the massive load over the front, resonating clanking vibrations that ripple through the surroundings, turning the mundane act of waste disposal into my captivating spectacle. As the payload is turned upside down, it's hung high over the receiving hopper, dumping an avalanche of waste. In this moment, the *dump truck* is more than just a machine; it's a reminder of my identity, interests, and mindset.

In the same way I was transfixed by the dump truck's machinery, whenever I find a fascinating piece of software, structure, or science, I lose track of time, putting myself in the position of that product developer. I ponder on the foresight the engineers had to make certain that the garbage truck's forks are still usable even if the vehicle is on an incline. I admire the programmers that created robust threads of continuous sensor-checks that protect from thousands of failures. I look up to the designers who had to ensure the garbage truck's center of gravity would remain positioned well enough that swinging the heavy bin over the front wouldn't be a hazard.

All these ingenious thinkers juggled countless factors like durability, cost, safety, manufacturing difficulty, regulations, repairability, and time-constraints to finish this spectacular product, an invention that serves as a backbone of essential infrastructure.

As I aspire to be part of that impactful community of makers, I am continuously thankful that I have the opportunity to lead in a similar way. For example, from my current experience as the team captain of a large, growing robotics team, I practice the intricate trade-offs, balances, and decision making required of a successful leader. While managing 80+ members across 7 separate schools to develop industrial-level, internationally competing robots, I regularly face crossroads where all decisions come with a list of cons and wishes of pros. Every path is uncertain: every path looks good, yet every path seems bad. Although such a position deters most minds, I find myself, again, spellbound by the role of this leader. I swiftly, yet level-headedly, analyze possibilities to proceed on the best-seeming path, conquering obstacles, failures, and surprises along the way.

Additionally, these successes never happen alone. Akin to the way that garbage trucks don't function without waste containers, and the whole system doesn't work without landfills, I recognize the vitality of collaboration and work with all to achieve greater accomplishments.

Furthermore, as I advance through this maze of choices, I make use of my deeply reflective nature to squeeze all the lessons learned from any result through the process. This builds a collection of clues and maps, an arsenal of experience to guide future journeys. Moreover, I am always ready to discard any opinion or notion proven wrong along the way, discipling myself that my attachment to any beliefs should not restrict my potential and my actions.

This combination of observation, decision-making, leadership, and reflection is a core mentality so meaningful to me that all my successes are attributed to this critical mindset. More importantly, all my failures are systematically reflected upon and built from to enhance my overall foresight and character for the future. With this approach, a cornerstone of my identity, I aim to leverage these traits in guiding teams towards collaborative success.

By weaving the harmony of curiosity, adaptability, and resilience into the fabric of leadership, I endeavor to inspire others in navigating our world's intricate terrains, unveiling unique, impactful solutions—each akin to their own dump truck, a critical culmination of multifaceted design with purposeful execution.

# **Community disruption**

My family and friends have endured the Mumbai Floods, Turkey Earthquakes, Hurricane Harvey, and Winter Storm Uri. These events left a profound impact on my outlooks and initiatives.

Living through the floods, storms, winds, ice, and debris was an ever-present sense of impending doom. It was scary knowing if there was some emergency, we had no means of calling for help. It was dreadful knowing that as our supplies dwindled, there were no shops to stock up essentials.

Despite these experiences, I consider myself lucky that my immediate family escaped permanent harm. This fortune reminded me of the capricious, unforgiving nature of such events and their far-reaching consequences.

This recognition of the unresolved challenges society faces in dealing with natural disasters led me to inventing the Robust Adaptive Network (RAN). RAN is a system of drones and rovers that provides essential cell signals, delivers urgent supplies, and relays important information during disasters. I've worked on this project with support from the Mayor of Houston, the Taco Bell Foundation, DiscoBots, Ashoka, ION Houston, and more.

But even with my current programming models, 3D designs, and system prototypes, I acknowledge the years of challenges ahead in realizing my invention. This is a significant reason of I want to

study Engineering and Computer Science in college. I believe that many global problems can be addressed through advances in technologies similar to RAN. My pursuit of your world-class education and my insights from personal experience drive me to solve pressing issues in the world.

#### **Additional information**

1) After my birth in India, my family relocated to Singapore, where we settled and gained citizenship. Unexpectedly, when I was 8, we moved to the US for a 2-year project in my father's job. However, as that job lengthened to various reassignments and the 2 years extended indefinitely, I have now lived in the US for the rest of these 9 years. However, as still a Singaporean citizen, I now face my mandatory military service term.

The prospect of diverging from the traditional trajectory and delaying my college experience is undeniably disheartening. While the excitement of higher academics approaches for many, I have to trudge on a different path. It's easy to perceive this as a setback, an interruption to the flow of education and personal growth, but I choose to cultivate a positive mindset. I see this national service commitment as a unique chapter in my life's narrative. It's an opportunity to embrace a change in lifestyle and forge bonds in my old home. By approaching this mandatory service with an open mind, I anticipate gaining valuable insights and skills that will enrich my future journey.

In the face of detours, I find strength in adaptability. Rather than viewing these two years as a delay, I see them as an investment in a more holistic self. I am eager to embrace every twist and turn in life's journey, knowing that each experience moulds me into a more resilient, open-minded individual, prepared for the challenges and opportunities that lie ahead.

2) One unique result of my Indian, Singaporean, and American culture exposure is my proficiency in Hindi, Mandarin, and English.

I hold the traditional backgrounds and perspectives of my heritage to be very valuable. This is one of the reasons I maintain a native proficiency in my mother tongue, Hindi. Along with this, my education outside home has been in English, so I am also natively proficient in English.

However, after being born in India and immigrating to Singapore, I decided to pursue learning Mandarin so I could better connect with the vast majority of Singaporeans who are Chinese. Even after advice against learning this impossible language at that late age (especially since most Singaporeans speak English anyways), I worked hard to learn the language and surpassed some native speakers of my age. Although I am now in the US, where I lack much incentive to keep up my Mandarin, I still practice and improve. I have written essays, won speech contests, and can hold a proper conversation in Mandarin. I am especially proud of this skill because I do not have any Chinese relatives/background to build off of, I instead had to start independently and have successfully reached a respectable position.

3) I would like to highlight some of my community involvements, here is a link to my community-hours log: https://docs.google.com/document/d/1NMJOxV938lkRo2drqXECyAFeHCo1ZYmL/

Through this record, you can see that a majority of my community service hours log are dedicated to actions like teaching younger peers or volunteering at educational competitions. One reason for this is because of the high value I place on education. I am grateful for inspiring education I have received, and I admire the power to inspire others similarly. Additionally, especially relating to my 90+ hours of community service towards multiple competition, as a competitive student, I have been thankful for all the competitions I have been able to participate in. Amongst these events, none of them ran without volunteers, meaning that my accolades, skills, and experiences were built upon the gracious selflessness of other volunteers. From this, I have a calling to continue their impacts by volunteering in competitions, ensuring that any other students will have the opportunity of smooth, fair, and constructive competitions.

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Sincerely,

**Soumil Goyal** 

# **Education progression**

# **Details**

**Education progression** No change in progression **details** 

# **California Institute of Technology (Caltech) questions**

#### **General**

Name Choice First Name

Admission plan Regular Decision

Financial aid Yes

Fee Waiver Caltech Active Transport Pass (ATP)

Fall 2024

Citizenship status (to determine if TOEFL and Financial Statement are

**Preferred start term** 

required)

If currently residing outside of the US, are you a refugee, internally displaced person, asylum seeker, stateless person?

No

Yes

No

International Financial Yes

Aid Statement - Do you intend to apply for

financial aid?

Portfolio Yes

#### **Academics**

**CCP: requirement** Yes

Will you be submitting additional transcripts, such as college or online coursework?

#### **Academic extenuating circumstances**

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.

#### STEM honors and awards

- 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).

Is English your native language and/or is English the primary language of instruction in your secondary school

Yes

#### **Contacts**

Have you previously applied to California Institute of Technology (Caltech)?

No

parent communication

Parent 1: Yes, Parent 2: Yes

contact

# **Context & Background**

Sometimes academic records and extracurricular activities are impacted by family responsibilities or other circumstances. We would like to know about these responsibilities and circumstances. Your responses will not negatively impact your application. You may repeat some information you already provided in the Common App Activities section. Please select which activities you spend 4 or more hours per week doing.

- Doing tasks for my family or household (cooking, cleaning, laundry, etc.)
- Taking care of younger family or household members

# **Family**

Sibling No Caltech Parent No

#### Other Information

Area of Study 1 Mechanical Engineering

Area of Study 2 Computer Science

#### **Option #1 Short Answer Essay**

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 enroll 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.

#### **STEM Question #1**

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.

Beyond the spectacle of making robots execute functions—be it scoring balls into hoops, scaling monkey bars, ascending poles, or launching frisbees—it's this 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 we are designing, building, or programming through our own unique path fills me with the thrill of curiosity and excitement.

#### **STEM Question #2**

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 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.

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 (200-250 words).

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.

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, I eventually founded the 'Screen Salvagers' project, gathering a larger team to further our collections. So far, we have saved over 400 pounds of polymethylmethacrylate (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.

# Mission Based Values Value 2 Ouestion

Share what one or more of these values evokes for you.

"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.

These transitions exposed me to stark opportunistic differences: while my brother and I used 3D printers and high-speed internet, my cousins experienced frequent power outages and no laptops for coding. I receive a fun, project-based, and hands-on education, while their schools impose rote memorization and no thought for real-life application. The contrasts especially stung when my cousins would always congratulate me on my tournament victories after my mother announced 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 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.

# **Optional Short Answer Questions**

#### **Identity question**

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 with 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.

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? This question can be answered as a written response (up to 100 words).

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.

#### **Short Answer #2**

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.

#### **Affirmations**

By submitting this application, I affirm my understanding of and agreement to the statements found here: <a href="http://www.commonapp.org/affirmations">http://www.commonapp.org/affirmations</a>.