* Please explain why you wish to study in the academic areas you selected above.\*

The Roomba, a marvel of innovation, epitomizes the perfect fusion of hardware functionality and software innovation in solving a noble everyday problem. Inspired by its usefulness, I embarked on a personal journey to create my own home-cleaning robot using robotics-kit parts. Unfortunately, my first, second, third, and fourth iterations met with failure when either the plastic components broke, or the motors got too hot, or the programming just wasn't working.

Through these setbacks, I realized that deepening my education in engineering and computer science would better enable me to meet my goals. I devoured more knowledge and practiced new skills until I could leverage 3D Printing, subtractive manufacturing, Raspberry Pi’s or server-code to create other household gadgets.

Now, in my current position, I have set my sights on further goals that reach beyond solving house problems. I don't just want to build a roomba anymore, I want to invent robots, tools, software, and concepts that change the world. To accomplish this, I know that I will have to, again, make a leap in my skills, knowledge, and experience. In this way Rice University’s culture of community-based research/innovation attracts me to these studies. Rice uniquely channels resources through real companies, organizations, and missions that produce a tangible impact. In this way, studying mechanical engineering and computer science at Rice appeals to my mission of applying technical knowledge in a touching way.

**The Roomba, epitomizes the perfect fusion of hardware functionality and software innovation in solving a noble everyday problem. Inspired by its remarkable utility, I embarked on a personal journey to create my own home-cleaning robot using robotics-kit components. Regrettably, my first, second, third, and fourth iterations met with failures, plagued by plastic components breaking, motors overheating, and programming glitches.**

**Through these setbacks, I soon recognized that the key to achieving my ambitions lay in deepening my education in engineering and computer science. I thirsted for knowledge and diligently honed new skills, pushing my boundaries with an open mind. I soon learned to leverage 3D Printing, subtractive manufacturing, Raspberry Pi's, and server code to design a myriad of household gadgets.**

**Today, my sights are on goals that extend far beyond resolving household issues. I aspire to pioneer robots, tools, software, and concepts that have the power to transform the world. To realize this vision, I understand that I must once again propel myself forward, refining my skills, expanding my knowledge, and amassing invaluable experience.**

**In this endeavor, Rice University's ethos of community-based research and innovation beckons to me. Rice stands as a unique institution that channels resources through real-world companies, organizations, and missions, all of which wield the potential to generate tangible and lasting impacts. This approach resonates deeply with my mission of applying technical knowledge in a manner that leaves a lasting impression.**

**Studying mechanical engineering and computer science at Rice University represents the perfect confluence of my aspirations and the educational foundation I require to transcend the ordinary. It is a beacon of hope for anyone with the desire to change the world through innovation, and it is within these Rice that I seek to craft a Roomba for the world’s future.**

The Roomba’ utility, a symbol of hardware-software synergy, inspired my journey to create a home-cleaning robot using robotics-kits parts. Through 4+ iterations of broken parts and programming glitches, I realized the need for a deeper education in engineering and computer science. Embracing 3D printing, exploring Raspberry Pi’s, and producing custom-AI, I soon designed various new household gadgets.

However, my ambitions now extend to pioneering innovations with global transformative potential. To achieve this, I must, again, advance my skills and knowledge.

In this endeavor, Rice's ethos of community-based research and innovation beckons to me. Rice stands as a unique institution that channels resources through real-world companies, organizations, and missions, all of which wield the potential to generate tangible and lasting impacts. This approach represents my aspirations of combining technical knowledge in global issues. Studying mechanical engineering and computer science at Rice, I aim to create a Roomba for the world's future.

* + The world faces issues like disparities, pollution, disaster, environmental degradation, and many more crises that rely on a large-scale fusion of creativity with technical expertise. The combination of computer science and mechanical engineering is the leading path to solving the major societal problems.
* Based upon your exploration of Rice University, what elements of the Rice experience appeal to you?\*

A culture of diverse community and a disposition of holistic education draws me to Rice University as my ‘dream school’.

Rice’s residential college system perfectly complements my open-minded mindset. I treat my notions/opinions like a starting-strategy in a chess game where if another player comes up with a flaw in my plan, I would continue on a learned foundation instead of still stubbornly playing the same move. In this way, Rice’s diverse, global body and strengthened bond through residential study presents me the perfect opportunity to evolve and grow as a person, adding more players to my chess team.

Additionally, Rice’s focus on a well-rounded education is a crucial benefit to my character. I have always appreciated my parents’ initial pushing of proficiencies across STEM, Arts, Athletics, Literature, Soft-Skills, and more. Continuing this habit of aptitude in all aspects is an important cornerstone of my development. Rice’s philosophy of exploration, interdisciplinary work, open curriculums, and personalized opportunities propels my dream ingrained in Rice’s original motto of “*Letters, Science, Art*”.

The unique culmination of a strong, diverse, and rewarding community with the pursuit of an all-encompassing growth makes Rice University a perfect school for my future education and ambition.

**A culture of diverse community and a disposition for holistic education draw me to Rice University as my 'dream school'.**

**Rice’s distinctive residential college system aligns seamlessly with my open-minded mindset. I view my notions and opinions as a starting strategy in a chess game. Just as in chess, if another player exposes a flaw in my plan, I am eager to adapt and build upon a foundation of learning and adapting. Rice's diverse, global student body and the strong bonds fostered through its residential college system offer the ideal environment for me to evolve and grow as an individual. In essence, it provides me with the opportunity to expand my "chess team" by engaging with people from different backgrounds, cultures, and perspectives.**

**Furthermore, Rice's emphasis on a well-rounded education holds immense value for my personal development. I have always appreciated my parents' encouragement to cultivate proficiencies across various domains, including STEM, Arts, Athletics, Literature, Soft Skills, and more. Maintaining this commitment to excellence in all aspects of my life is a cornerstone of my character. Rice's educational philosophy, characterized by its dedication to exploration, interdisciplinary collaboration, open curriculums, and personalized learning opportunities, resonates deeply with my aspirations. It embodies the essence of Rice's original motto, "*Letters, Science, Art*," and integrates my desire for a comprehensive and enriching education.**

**This unique amalgamation of a strong, diverse, and nurturing community with the pursuit of all-encompassing personal growth makes Rice University the perfect institution for my future education and ambitions. It is a place where my eagerness to learn, adapt, and expand my horizons will find fertile ground, and where I can contribute to and benefit from a thriving intellectual community. Rice University, with its rich traditions and forward-thinking approach to education, is the embodiment of my dream school, and I am excited about the possibility of becoming a part of this world-class community.**

A culture of diverse community and a disposition for holistic education draw me to Rice as my dream-school.

I view my opinions as openings in chess games: if someone exposes a flaw in my plan, I am eager to adapt, building upon a foundation of learning and refinement. Rice's global student body and the powerful bonds fostered through the residential system provides me an expansion of my ‘chess team’ by learning with people from different backgrounds, cultures, and perspectives.

Additionally, I always aim to pursue excellence across STEM, Arts, Athletics, Literature, Soft-Skills, and more. Rice's philosophy, demonstrated by interdisciplinary collaborations, open curriculums, and personalized learning opportunities, resonate deeply with my aspirations, embodying "Letters, Science, Art".

This amalgamation of a strong, diverse community and the pursuit of all-encompassing growth makes Rice University the perfect institution for my ambitions. Rice supplements my open mindset while developing comprehensively, a cornerstone of my character.

* Rice is strengthened by its diverse community of learning and discovery that produces leaders and change agents across the spectrum of human endeavor.What perspectives shaped by your background, experiences, upbringing, and/or racial identity inspire you to join our community of change agents at Rice?

Being born in India (the country of my heritage), lived in Singapore (the foundation of my childhood), and now residing in Houston (the stepping-stone of my future), has exposed me to various perspectives and unique standpoints, but some of my most transformative experiences have been in through my Taekwondo journey.

A few months after I joined my Taekwondo school, I was struggling with balance and technique in a basic sequence of moves. While other senior instructors merely advised repetition, it was Master Blazek who recognized my struggle and approached me with valuable insights.

Noticing I was turning my waist too much during my kicks, he devised a creative routine. He asked me to kick a foam helmet that he tossed into the air. By throwing it to intentionally exploit my tendency to over-rotate, this exercise helped rewire my muscle-memory and significantly improve my balance. I later went on to win a Gold Medal in the International Open Taekwondo Poomsae Championships, a testament to the profound impact of Master Blazek's teachings.

Two years later, as I earned my first black belt, Master Blazek offered me a unique opportunity to become a junior-instructor over my peers. I eagerly accepted, excited to pass on the technical knowledge and experiences I had gained under his guidance.

In one of my early teaching sessions, I observed a student, Yash, struggling with his taekwondo forms. He executed the sequence of moves with a lack of strength which was sure to reduce his competition scores where "expression of power" is awarded points. I saw my initial state of unaware inaccuracies in Yash’s attempts, but at this same moment I saw an old foam helmet in the corner, inspiring a creative teaching exercise.

Holding the helmet in a loose grip, I encouraged Yash to punch it out of my hands. He started with lazy taps, but the novelty of knocking the helmet away and watching me retrieve it unlocked a new excitement in him. Gradually, he started to launch the helmet across the room. Asking him to re-do the sequence but with the addition of this power, the immediate results were undeniable, each move now infused with a newfound vigor of force and energy.

It’s mentoring and leadership opportunities like these that have transformed me into an interpersonal leader.

Master Blazek’s technical expertise, wisdom, and genuine care have shaped my journey to become a "Master Goyal" not just in the dojang, but in global communities that solve pressing issues.

Sharing my knowledge and skills with Yash and other peers in Taekwondo, Debate, Robotics, Projects, and more have enriched my ability to be a changemaking leader.

This perspective as a selfless mentor and effective leader beckon me to carry forward a legacy of learning, empowerment, and application as I inspire my peers and myself to tackle extraordinary challenges together. Rice’s diverse communities are the perfect bedrock to leverage these skills by collaborating through Owls' ranging specialities in creating positive impact for the world.