1. Tell us about your experiences as a New American. Whether as an immigrant yourself, or as a child of immigrants, how have your experiences as a New American informed and shaped who you are and your accomplishments? (?)

The breeze in Vietnam’s Central Highlands is the first hint of spring. In March 1975, that breeze thickened into the roar of tanks. As the North advanced, my grandfather—who had served in the South Vietnamese army—ran with my newborn mother in his arms. A shell burst nearby, burning her face. Believing she had died, my grandparents moved along the riverbank to bury her unseen. My grandfather lifted a canteen—taken from a fallen U.S. soldier—and poured its water over her face to baptize her before burial. She blinked. But survival didn’t bring safety. Because of his service and our family’s Catholic faith, they were persecuted and branded as outcasts; my grandfather spent nearly a decade in a re-education camp. My uncle was a stellar student, but due to his family’s background, he was outcasted and his marks reduced to paint him as a poor student. My mother and her brother left school around middle school to help support their family. Her brother biked 2 kilometers each day into the forest to cut down firewood to sell to the food stalls. My mother worked as a maid, often eating only the scraps from the plates she served. Years later, the United States opened a lifeline through Hạt Ô, the Humanitarian Operation, giving families like mine a narrow door—a second chance to begin again in America.

The first thing we felt here was relief. Home was a Section 8 two-bedroom—my grandparents in one room, my mom and her three sisters in the other, her brother on the couch—grateful for the chance to begin. Saturday mornings, my uncle picked me up to renovate houses, and we bonded over space documentaries. He told me how he dreamed of studying space in Vietnam. But due to the war, politics blocked his education, so he worked in a window factory to support his family. He kept learning anyway and said, “I had to use my hands; you have the chance to use your mind.” Watching him persist through limitations taught me resilience and gratitude for opportunities I have. My mom worked days at a nail factory and, to support four kids on her own, picked up nights as a nail technician, saving toward the dream of a salon. I looked after my three younger siblings while she was at work. She’d stretch her tips with coupons for the Burger King family bundle, and we’d study for her citizenship test. There was a dual story here, as a 5th grader, I was struggling with translating the branches of the government. And the last time she studied for a test was when she was my age. She would always say, “Cúi đầu là sách vở, ngẩng đầu là tương lai”—look down to study, look up to your future. Through grit and grace, she passed and was naturalized as a U.S. citizen. Watching my mom and uncle persist through limitations taught me resilience and gratitude for opportunities I have, things that weren’t even possible for them. For me, it became the foundation of what I believe being a New American means: never forgetting where you come from but using your opportunities to give back to the place that gave you a second chance.

As America was my mom’s refuge, school became mine. Growing up in Section 8 housing, poverty, food insecurity, and government assistance, I looked forward to going to school for the free breakfast and lunches. Growing up in Section 8 housing on government assistance taught me resourcefulness. I used it to learn space through library books and online courses because my school lacked a space curriculum. Without a father, teachers became mentors and guided me to become the first in my family to graduate high school and college. That experience planted the seed to mentor others—and showed me education can be both empowerment and possibility. To them, America was their refuge, despite the lack of education, it was a chance to build something new. To me, school was my refuge, using that education the education that my mom and uncle. School became my refuge. It was where I knew I’d have two meals a day, caring teachers, and space to dream beyond our apartment walls. Those teachers became role models, the first people who showed me what patience and mentorship could look like. I discovered my love for space in a public library. Each week, we were told to pick out a book, and one day I grabbed one about the moon. I read it cover to cover, amazed that humans could measure something so far away. Our school didn’t offer advanced science classes, so I taught myself trigonometry and physics from library books and YouTube videos.

Going to a Title I school, I was blessed with the best teachers possible. They encouraged me to take math and science outside the school district that my school didn’t offer. Most of my classmates didn’t go to college but my teachers encouraged me to study math and science seriously. At Iowa State University, I became the first in my family to earn a degree milestone that carried generations of sacrifices behind it. A full scholarship lifted the financial burden on my mother’s shoulders, giving me the opportunity to pursue something that our family was never able to do either.

In college, I found that every breakthrough, whether in a classroom or a lab, began with someone believing you could do more than you thought possible. At Iowa State University I first began joining a research group for the Global Trajectory Optimization Competition where I modelled the Jovian Moon and interplanetary transfer orbit. At the time I was only a sophomore and hadn’t even taken any upper-level classes in orbital mechanics. However, my advisor believed in my potential and determination, and I was able to teach myself. This belief sparked in me a pursuit of graduate education. To learn more about orbital mechanics but to also take after my advisor. Uplifting students and believing in their potential to succeed. I was accepted in the McNair’s scholars’ program to better prepare myself for graduate education. Being the first in my family to pursue a graduate degree, I sought for guidance. I was accepted in the McNair’s scholars’ program to better prepare myself for graduate education. I’m eternally grateful for this opportunity as it taught me so much about graduate education.

I continued my education at the University of Illinois at Urbana-Champaign pursuing a master’s in aerospace engineering but despite my efforts I could not secure funding. Despite this, I was pushed forward and was working 2 jobs and taking 5 classes my first semester to make ends meet. Despite my best efforts, this led me to academic probation with a 2.78 GPA. I didn’t let that deter me but used it as a catalyst to learn from my mistakes. That next semester I earned a 3.66 GPA and was able to find funding that semester through a teaching assistantship. Due to my low academic standing, it was difficult to secure an advisor. However, one professor believed in my determination and advised me on a project where we worked on analyzing the effects of assessments when modifying the assessment structure for an undergraduate rocketry course. This research coupled with my passion for teaching and space; I was able to engage directly with the students and teach. As well as learning how to do literature reviews, statistical analysis, and technical documentation for the very first time. After graduating, I was determined to continue my education to contribute to the space domain and to create research programs for underseved students, and teach as a professor. I saw my previous acamdemic perfromace not as setbacks, bet setups for something greater.

From there I continued my education to a second master in space systems engineering at the University of New Mexico. Here I’ve had the opportunity to take specialize courses centered around Guidance, Navigation, and Controls with applications in orbital mechanics. To support myself, I have worked multiple jobs and internships aiming to improve my academic standing, teaching capabilities, and technical skills, while funding my own education. During my semester of this new program, I’ve worked as a Youth Development Professional at the Boys and Girls Club where I taught computer literacy to 3rd-6th graders. I saw myself in these students and understood their struggles of not having access to technology and was able to guide them and mentor them through that. It was a full circle moment. I was also a high school math teacher, where I taught Algebra I/II, precalculus, and calculus. I was able to give back to these students who were strugging just like I was when I was there age.

I’ve also had the opportunity to travel all across the United States, interning at a variety of aerospace companies. At a Univeristy Afliated Research Center at Space Dyanmics Laboratory in Utah where I developed a state estimation algorithm to catolog resident space objects using angles only measurements. To start ups at Varda Space Industries in Southern California where I design another state estimation algorithm for manuever planning and reentry of a microgravity capsule to produce pharmicutacals in space. To developing model free rejection disturbance algorithms used on the engine for the lunar lander rocket engine in the pacific northwest at Blue Origin large aerospace coprations. To supporting mission operations, on orbit updates, hardware testing and verification for commercial, civil, and government missions at commercial aerospace at Blue Canyon Technologies in Colorado. To now creating stochastic methods incroprating optical sensor and resident space object properties to dtermin the probability of detection in New England at MIT Lincoln Laboratory a federally funded research center.

My mom and uncle have shown me nothing short of perseverance, grit, and determination. Watching them persist through limitations taught me resilience and gratitude for opportunities I have. I would not have been able achieve what I have. I’ve learned from that obstacles are not barriers, but are a sign that you are on the right path. As a New American, this wouldn’t have been possible without the Humaniatrion Operations, section 8 housing, and government assistance that helped my family survive and prosper. Without the belief and support from my teachers and advisors, I would not have been able to prosper in my academic and professional career.

As I’m looking down, writing this, thinking about my families journey. From my mom nearly passing away as a newborn, to receiving a second chance in a new country, being the first receive an education beyond 8th grade, to going onto two masters degrees and traveling across the U.S to work across all reams of the space industry. I owe it all to my mom, for her sacrifice and setting the example of determination, grit, and perseverance. And to this country, which has given me the opportunity as a New American to contribute and give back.

There is no amount of words or gratitude that I would be able to offer that cements how grateful I am for their sacrifice and these opportunities. Just as Paul and Daisy Soros created second chances for New Americans to dream beyond survival, I hope to do the same—through open teaching, open research.

1. Tell us about your current and near-term career-related activities and goals, as well as why you decided to pursue the specific graduate program(s) and school(s) that you have. (?)

I’m building flight-ready autonomy for spacecraft—tools that answer “Where am I? Where am I going? How do I get there?” across LEO, cislunar, and deep-space regimes. Near-term, my PhD will focus on three pillars: (1) **online trajectory optimization** for real-time replanning, (2) **adaptive, model-compensating state estimation** that remains accurate under uncertainty and across orbit regimes, and (3) **robust, model-free disturbance rejection** for flexible modes, propellant slosh, and unmodeled dynamics. I’ll take each from **high-fidelity simulation → software test → hardware-in-the-loop**, targeting publishable results (2–3 first-author papers) and a CubeSat-class demo validated against explicit navigation-error thresholds. Long-term, I aim to release **open-source GNC infrastructure**—trajectory planning, adaptive navigation, and robust control—plus shared protocols for rendezvous, deorbit, and traffic management, so universities, startups, and agencies can adopt, certify, and extend reliable autonomy at lower cost.

I’m pursuing Stanford Aeronautics & Astronautics to work in the **Space Rendezvous Laboratory (SLAB)** with Prof. Simone D’Amico. SLAB’s mission squarely matches my focus: **astrodynamics + GNC + environment characterization + decision-making** to enable **distributed space systems** (formation flying, swarms), with rigorous validation via hardware-in-the-loop and flight demos. SLAB work includes autonomous multi-satellite navigation using only onboard vision (StarFOX/Starling), demonstrating the kind of field-validated autonomy I want to help push forward. Stanford is also a strong fit for my mentoring goals. Its **AIM (Asian American Interactive Mentoring)** program pairs undergraduates with grad students, faculty, staff, and alumni for one-on-one mentorship attentive to cultural context—I plan to serve as a mentor and channel my experiences as a first-gen New American into practical guidance on research, internships, and graduate pathways. Within Aero/Astro, additional mentoring and exposure pipelines connect students to research and graduate preparation—structures I’ll plug into to keep widening access to space careers.

In parallel with research, I’ll continue hands-on education and outreach (building on my rocketry-assessment redesign and K-12/classroom visits) by developing classroom-ready modules that mirror my lab work—e.g., small-sat testbeds for vision-based navigation and disturbance rejection—so students from under-resourced backgrounds can touch autonomy, not just read about it. Pairing **open tools** with **open teaching** is central to my plan: progress scales when others can build on it. Stanford’s SLAB gives me the research home to make flight-credible autonomy real; the AIM ecosystem and student-support pipelines give me a way to make the path behind me clearer for those coming next.