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, it 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 slipped to a riverbank to bury her unseen. My grandfather lifted a canteen from a fallen U.S. soldier and poured water over her face in baptism. She blinked. Survival didn’t bring safety: because of his service and our family’s Catholic faith, they were persecuted, and my grandfather spent nearly a decade in a re-education camp. My mother left school around middle school to help support the family, working as a maid and 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 to begin again. 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 Burger King coupons, and we’d study for her citizenship test at the kitchen table. I was a fifth grader trying to translate the branches of government; the last time she’d studied for a test was when she was my age. She would 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 became a U.S. citizen. Watching her persist through limitations taught me resilience and gratitude for opportunities that didn’t exist for her. For me, that is what it means to be a New American: never forgetting where you come from and 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. I looked forward to our weekly library trips, where we each picked out a book to read for the week. One afternoon, I wandered to the space shelf, picked up a book about the Moon, and I was hooked. Within weeks I’d finished volumes on the planets, the Sun, and asteroids. I wanted to learn more, but my school’s science curriculum didn’t cover space. My English teacher stepped in as a mentor, encouraging me to take advanced classes beyond our district and showing me how to find scholarships. When college applications came around, that guidance mattered in a community where few students applied to four-year universities. I chose one school—Iowa State—so I could stay close enough to support my family; campus was about a 45-minute drive, which let me be present at home and still move ahead. A full scholarship lifted the financial weight from my mom and let me focus. I became the first in my family to earn a college degree, a milestone grounded in her persistence, my teachers’ investment, and my own discipline—and I carry that forward: use every opportunity well and help others reach theirs.

In college, I learned that every breakthrough begins with someone believing in your potential. My advisor at Iowa State took that chance on me when I joined a research group competing in the Global Trajectory Optimization Competition. I modeled Jovian moon and interplanetary transfer orbits as a sophomore, even before taking an orbital mechanics course. His trust pushed me to teach myself the material and showed me how far curiosity could go when met with guidance. That experience shaped my goal not only to pursue graduate education but to one day mentor students the same way he had guided me. Through the McNair Scholars Program, I learned how to navigate research and graduate school preparation—knowledge no one in my family had before.

At the University of Illinois Urbana-Champaign, I began my master’s in aerospace engineering determined to grow as both a researcher and educator. Funding challenges forced me to balance two jobs and five classes in my first semester, and I ended up on academic probation. Instead of discouragement, I took it as instruction—learning to manage my time, ask for help, and build better systems for myself. The next semester, I earned a 3.66 GPA, secured a teaching assistantship, and found a mentor who shared my interest in education research. Together, we studied how modifying assessment structures affects student learning in an undergraduate rocketry course. That project was my first exposure to data analysis, literature reviews, and mentoring undergraduates, and it affirmed that teaching can be as powerful a tool for discovery as engineering itself.

After graduating, I continued my education in Space Systems Engineering at the University of New Mexico to deepen my technical foundation in guidance, navigation, and control. To support myself, I taught math at a high school and worked at the Boys and Girls Club, where I led computer literacy programs for 3rd–6th graders. Many of those students lacked access to technology, and I saw pieces of my younger self in them—curious but unsure where to start. Helping them build confidence through learning felt like coming full circle. It reminded me that education, at every level, is a form of empowerment. Each classroom, lab, or after-school program is a chance to offer what my mentors once offered me: belief in what’s possible.

Working my way through school, I’ve been able to travel across the United States—using internships to support my education and deepen my technical skills. At the Space Dynamics Laboratory in Utah (a University Affiliated Research Center), I developed a state-estimation algorithm to catalog resident space objects using angles-only measurements. At Varda Space Industries in Southern California, I designed another state-estimation algorithm for maneuver planning and reentry of a microgravity capsule producing pharmaceuticals in orbit. In the Pacific Northwest at Blue Origin, I built model-free disturbance-rejection algorithms for a lunar-lander rocket engine. In Colorado at Blue Canyon Technologies, I supported mission operations, on-orbit updates, and hardware verification for commercial, civil, and government spacecraft. Most recently, at MIT Lincoln Laboratory in New England, I’ve created stochastic methods that incorporate optical-sensor and resident-space-object properties to determine probability of detection. Each role—spanning startups, a UARC, a federally funded research center, and a major prime—gave me opportunities my family never had and that I remain deeply grateful this country made possible.

Every step of my journey—from library shelves to research labs—has been shaped by the belief others placed in me and the opportunities this country made possible. My family’s story began with survival; mine continues with the responsibility to turn that survival into service. The perseverance my mom modeled and the mentorship I received have become the foundation of the person I hope to be: a researcher, educator, and mentor who opens doors for others the way they were opened for me. To me, being a New American means honoring the sacrifices that built my path by widening it for those who come next. Just as Paul and Daisy Soros created second chances for families like mine, I hope to dedicate my life to the same—through open teaching, open research, and the pursuit of discovery that lifts others along the way.

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.