I am an undergraduate at the University of Nevada, Las Vegas (UNLV), pursuing a dual B.S. in Mechanical Engineering and Mathematics with a minor in Computer Science, all geared toward a career in robotics. As an undergraduate researcher in the Drones and Autonomous Systems Lab (DASL), I co-authored my first peer-reviewed paper, “Wearable SLAM System in GPS-Denied Environments.” These experiences motivate me to deepen my expertise in 3-D design, SLAM, and embedded systems. After earning my bachelor’s degrees, I plan to complete an M.S. in Mechanical Engineering at UNLV to refine my technical skills and strengthen my qualifications for work in advanced robotic systems.

During the 2025–2026 academic year I will lead a project titled “Swarm Robotics for Planetary Surface Exploration and Mapping.” The objective is to field an autonomous swarm that can generate real-time, high-resolution terrain maps of lunar or Martian surfaces and automatically recommend safe landing zones. I will fuse LiDAR, depth-camera, and IMU data within ROS 2, validate the mapping and site-selection algorithms in Unity-based simulations, and then conduct scaled field tests to demonstrate the platform’s readiness for real-world planetary missions.