Describe your overall duties/responsibilities as a Propulsion Test Engineer:

I am responsible for developing test equipment, supporting test operations, and partaking in test data analysis for the bipropellant thrusters that will be used on Axiom Station, an upcoming commercial space station. I interface with design engineers to determine what data needs to be gathered and design test infrastructure and analysis codes in order to extract this data efficiently, so that the design can be iteratively improved. Ultimately, I am responsible for recreating different aspects of the operational space environment and ensuring that thruster survivability and performance targets are met.

Explain the skills/abilities that are required for being successful in your role:

Being a quick learner, being a risk-taker, and being well-rounded are all important abilities to have for my role. As a new-grad, there is a lot of new information that you must soak up in a short period of time, while also contributing to projects; putting in extra effort, going outside your comfort zone, and asking questions to senior members of the team are essential in this stage. Next, the work culture at Axiom is focused on embracing failure because it presents the best opportunities for learning and improvement, so being willing to take risks is valued. Lastly, because Axiom is a startup, it is common for an engineer to be involved with tasks that require differing sets of skills.

What advice would you give to students who are considering majoring in Aerospace Engineering?

Become involved with a hands-on project as soon as possible, such as undergraduate research, or a student project team such as Formula SAE. Companies often value this experience more than grades, especially if you hold a leadership position in such an extra-curricular activity. It will also give you a head start when doing an internship or beginning a full-time role.