Describe your overall duties/responsibilities as an Aerospace Engineer:

I provide Aerodynamic Stability & Control analysis/support for Boeing’s commercial airplanes. S&C has a diverse work statement at Boeing - everything from supporting early stage conceptual development, wind tunnel data collection and troubleshooting, aerodynamic database buildup, onboard flight test support, flight dynamics analysis, and accident/incident investigation support. I also often work with the FAA and foreign regulatory agencies to show that our aircraft comply with aviation regulations. My most recent work includes supporting the 737 MAX and post-certification (“Fleet Support”) S&C teams.

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

As an engineer supporting the creation of large transport aircraft, it's important to understand the fundamentals of flight dynamics, pilot operations, and the regulatory environment. Detailed knowledge of a particular model is certainly important in my role, but it’s something that is picked up as experience with an airframe grows. Having a solid understanding of the bigger-picture aero engineering fundamentals allows me to get to the 90% answer very quickly, which will help narrow the scope of whatever task is at hand. No matter how well you perform your engineering assignments, effective communication of ideas and data are key! A wise mentor once told me to visualize the plot that will have the answer(s) you need - then set out to create data that will tell the story.

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

Consider training for a pilot certificate or at least take a “discovery” flight. If flying some sort of aircraft (including drones, rockets, etc!) really does not make you excited, ask yourself why. Focus on the basics and “big picture” in your courses - and then apply those skills to solve real-world problems such as those you might encounter in Design, Build, Fly or the Rocket club.