

PERSONAL STATEMENT

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July 25th, 2019 was the best day of my life so far: I met Elon Musk and was asked to talk to him privately about the future of space and manufacturing at SpaceX; I shook hands with Buzz Aldrin, the second human to walk on the moon; and I spent the day and night with fellow space students and current space leaders. I wasn't always a space nerd though. It was during the middle of my freshman year at the University of New Hampshire that I witnessed the first sub-orbital flight booster reenter and land on a floating drone ship by SpaceX. I have always followed Elon Musk and his adventures into the space and automotive industry with Tesla, but seeing live what commercial space is capable of completely defined my dreams. My uncle Allen, who started his own newspaper company and genuinely enjoys his work, told me there is *sometimes* a moment in people's lives that make them realize what they are passionate about, what they are inspired to work on. For me, it was that moment. I wanted to work on making humans explore deeper into space and become multi-planetary.

Space is a unique industry and one that is inherently cosmopolitan. It is the only physical location that is the same distance away from everyone, just 100 kilometers above your head. The one challenge for me was to become a member in the commercial space community, as it is the hardest industry to get into as an engineer. I didn't want to wait for my university days to be done to begin my venture into commercial space, so I started a local Students for the Exploration and Development of Space (SEDS) chapter where we specialize in the design and manufacturing of rockets and hybrid engines, and community outreach. SEDS has given me the opportunity to work with like-minded engineers on aerospace projects that are exciting and difficult. It was my first experience in difficult manufacturing challenges, and my initial work with plastic 3D printing.

My work with SEDS and my passion for rockets and commercial space led me to be accepted into the Matthew Isakowitz Fellowship Program. The fellowship is a selective internship and mentorship program for students passionate about commercial spaceflight. It led me to work at Rocket Lab, a rocket company based in New Zealand. I worked in their Huntington Beach factory manufacturing the rocket engines for their Electron rocket launched in Mahia, New Zealand. The Fulbright program also pairs perfectly with my belief in the strength of cultural connections. Working at a New Zealand based company let me interact with the engineers there that not only think differently but offer creative ideas and concepts that could not have come from any of the engineers here at the US factory. Just recently, I was working on designing a tool for machining a nozzle extension for our engines. I was able to reach out to the lead engineer in New Zealand to work directly with him on coming up with the most optimal design for our needs. The difference in experience and engineering education allowed the team to bounce new ideas around, coming up with a design that was perfect for its design criteria.

Space is grand, and it will take minds from around the world in every industry to make humans a multi-planetary species. Being a team player and working with people regardless of cultural upbringing or religious beliefs is imperative to the future of everyone on Earth.