To the Starship team,

During the winter break of my freshman year, I witnessed SpaceX land a Falcon 9 on ‘Of Course I Still Love You.’ To this day, it is the moment in my life that showed me what I was passionate about: space exploration. From that revelation, I immediately started a rocket organization under Students for the Exploration and Development of Space called UNH SEDS. Over the last 3 years, I have grown the organization into a family of students passionate about the commercial space sector. We worked with off-the-shelf engines at first with in-depth MATLAB simulations for trajectory and dimension optimization, but quickly moved into the development of Runaway, our hybrid rocket engine. It is now our mission to optimize and qualify Runaway to then integrate into a rocket for Spaceport America Cup in June 2020. I also joined the SEDS USA board as the Member at Large, managing the development of a SEDS Wiki that will take the knowledge of all 110 chapters within the states to assist in knowledge transfer through the years.

For the summer of 2019, I applied and was invited to be a fellow in the Matthew Isakowitz Fellowship Program which paired me with Rocket Lab in California. With Rocket Lab still being a small manufacturing team and being the only engineering intern, I worked on the entire process of producing the Rutherford engine for the Electron. I primarily focused on the machining of the thrust chamber, designing and manufacturing tooling to cut set-up/run time while improving quality. The fellowship also consisted of a summit in LA that included meeting the rest of the fellows, touring various commercial space companies (including SpaceX), and meeting notable leaders in each of the companies. I was fortunate enough to connect with Elon, as well, which was a really ‘full-circle’ experience for me.

The attribute that makes me stand-out from most other people is my passion and drive. I am here to contribute to our species and working at SpaceX is the direct line to making humans multi-planetary, which I believe is the biggest impactor to humans and life itself. My peers often put huge importance on their pay, which I have never been able to relate to. I just want to dedicate my life to a team that want to push what was known as impossible to possible, and as quickly as possible. That’s SpaceX. Our lives are short, but our impact on the world can last forever.

Ad astra,

Charlie Nitschelm

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