

Statement of Purpose

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On the first day of Astro 310, the introductory astronautics course at the US Air Force Academy, the professor asked bluntly, “What have you learned so far?” Some stated that they knew trigonometry; to which the professor replied “ Well, that brings you up to about the year 300 B.C.” Another would reply that we had all learned calculus as well, which would be answered with another blunt statement of “You’re now all the way to about the 1700s.” It was at this point where I finally realized that the wave of human knowledge continually moves forward and I want to lead it. My goal is to obtain a PhD in Aerospace Engineering and attempt to contribute to the field in the same manner as all those who have come before me.

My education at the Academy exposed me to this wide field and I became very interested in control systems theory, dynamics, and orbit mechanics. I further supplemented this education by pursuing a Master’s degree from Purdue University. Focusing my coursework on control theory, orbit mechanics, and analytical dynamics have further cemented my desire. In addition, as a commissioned officer in the US Air Force and an Engineer at the Air Force Research Laboratory I have been exposed to the current technical challenges being faced by the nation.

I hope to further my understanding of control and dynamics and continue research in this field. My interests in these fields have led me to applying to Purdue University. As a full time member of the Air Force a quality distance learning program in this field was very important to me. Purdue University allows me to continue my education and pursue my dreams while still working full time for the Air Force. I believe that the Aeronautics and Astronautics Department at Purdue University is the ideal place to complete my graduate degree. The expert faculty and highly regarded program make Purdue University a excellent opportunity to continue my studies. I can directly apply the information learned in my graduate studies to the current issues on operational systems for the Air Force. I plan applying the knowledge from this graduate degree to further advance current space systems in the Air Force. After my career in the Air Force I hope to pursue a doctoral degree and become a professor or work for the private industry. The combination of a world class education and applicable experience in a space related field would prove useful to a professor.