

Sergio Alejandro Rosales Vargas

M.Sc. SPACE ENGINEERING

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POLARIS Raumflugzeuge GmbH Hiring Manager

June 27, 2025

ZUM PANREPEL 11
28307 BREMEN

Reference: Application for “Junior Systems Engineer Aerial Refueling”

Dear Hiring Manager,

My name is Sergio Rosales, and I am writing to express my interest for the position of *Junior Systems Engineer Aerial Refueling* at POLARIS. With my background in design of robust systems, hands-on experience in R&D, and involvement in diverse software development projects, I am confident that my skills are well suited for the position.

My recent involvement in the thermal engineering team at ArianeGroup further deepened my understanding of aerospace design processes and reinforced my ability to work in multidisciplinary teams. In addition to that, during time in IMEMED, I led the electronics design team, working in embedded systems development, which involved solving complex technical challenges in real-world applications.

Additionally, as a member of the avionics team in the student initiative ASTRA e.V., I contributed to the design of a rocket that aims to reach the Kármán line. My experience there included the use of sensor fusion for attitude determination. Similarly, at AGROINBO, I automated an almond dehydration system with a PI PLC-controlled closed-loop architecture. This required balancing thermal dynamics of the system and while my direct experience in flight controller coding is minimal, my proficiency in Python and MATLAB/Simulink provides a strong foundation for rapid upskilling.

I share POLARIS Raumflugzeuge GmbH's commitment to innovation, efficiency, and technical excellence. This makes me eager to seize the opportunity of growing my leadership skills, refining collaborative problem-solving in multidisciplinary environments and expanding my professional knowledge.

I'm ready to take up the challenge to work as a systems engineer. I appreciate your consideration and welcome the opportunity to discuss the position.

I look forward to your reply.

Sincerely,

Sergio Alejandro Rosales Vargas