

Dear **Company** recruitment team,

I was excited to learn about the opening of the **XYZ** position to linkedin.com and for an opportunity to submit my resume. I have earned a BS in Materials Engineering and, prior to the pandemic, worked as an Aerospace Metallurgist and Failure Analysis Engineer on the E2-D Hawkeye program at Northrop Grumman. ***I am passionate about XYZ and believe that I can apply XYZ skills at [this company] because I am interested in [the program and company specifically].***

As an Aerospace Metallurgist, I was familiarized with a rotating workload of different aerospace metals, polymers, welds and coatings, and their corresponding processing, manufacturing and usage histories, demonstrating my practical knowledge of materials science. I took charge of failure analysis projects from the earliest stages of documentation, through testing to the final penning of technical reports, highlighting my ability to take ownership of my work through practical applications of my skills. I have demonstrated an ability to conduct quality testing to ensure compliance with standards both by following and establishing SOP. This role was particularly advantageous for my professional development because our materials team included just myself and two senior engineers, which allowed for me to independently take ownership of tasks and responsibilities while also drawing benefit from working alongside highly skilled mentors. I am a quick study, and ambitious, with the ability to handle high pressure situations better than most. For my senior capstone project, we investigated wear mechanisms and recommended replacement materials for powder metal Cu-C composite electromechanical components in frictional slip ring systems. I acted as project manager and, among my responsibilities was organizing and taking part in a rigorous testing schedule to fit our budget and timeline. We characterized compositions and properties using stereo and optical microscopy, SEM/EDS & TGA. Additionally, I organized one-on-one interdepartment lessons with graduate students on how to map surface metrology and how to accurately apply FEA to the CAD models that I had reproduced, demonstrating not only my technical abilities and adaptability, but that I can challenge myself and others to learn and apply unfamiliar techniques for more effective problem solving. This data ended up being crucial for our final determinations and was used to present conclusive recommendations to an unmistakably impressed client, resulting in the implementation of these components with a predicted lifetime lasting twice as long as their predecessors, and at 40% under budget- an illustration of my ability to effectively manage a team and contribute to complex design of experiment.

Throughout my professional career, I have demonstrated consistency and determination, supported by a foundational intellectual curiosity. Alongside my technical skills, I believe these qualities would be an asset at this company. I have attached my resume for review and, if there is mutual interest, would welcome an opportunity to schedule an interview. I can be reached by phone at **NUMBER** or by email at **EMAIL@gmail.com**. I look forward to hearing from you.

Thank you for your consideration,
NAME