ZACHARY ROHLOFF

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Dear Hiring Manager,

I am a mechanical engineering student at Virginia Tech seeking an internship or co-op where I can contribute to the design, fabrication, and testing of mechanical systems. I am particularly interested in aerospace and propulsion, and I enjoy the practical work of turning an analysis or CAD model into hardware.

During my engineering internship at NASA Johnson Space Center, I led a team of interns designing and building a solar charge station for a lunar rover test prototype. I designed the support structure and deployment mechanism, calculated loads to help prevent tipping, and machined wheel-locking studs. The project gave me experience working from design through fabrication while meeting a schedule.

At Virginia Tech's Unmanned Systems Laboratory, I design and 3D print parts, repair drone frame components, and assist with engine mounting and wiring. I am also working on an electronic continuously variable transmission for a GoAERO competition drone. In laboratory work, I have collected and analyzed wind tunnel and other experimental data using MATLAB. My coursework includes aerospace propulsion systems, gas turbines, astromechanics, fluid dynamics, controls, and mechanical design.

I would welcome the opportunity to bring my experience with SolidWorks, fabrication, testing, and technical analysis to an engineering team while learning from its members. I am a U.S. citizen and am open to relocation within the United States. Thank you for your time and consideration.

Sincerely,
Zachary Rohloff