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Hiring Manager
Orbital Materials
Princeton, NJ

Dear Hiring Manager,

I am writing to express my enthusiasm for the researcher role at your Princeton facility, focused on advancing frontier generative AI for material discovery, climate change solutions, and scientific progress. My passion for artificial intelligence, coupled with my academic and professional background, positions me as a strong candidate to contribute to your interdisciplinary team.

I am currently pursuing a Master's degree in Data Science at Stevens Institute of Technology, where I have developed expertise in machine learning, natural language processing (NLP), and deep learning, including large language models (LLMs). My academic projects, particularly those involving GPT-based generative AI and LLM-powered tools, have strengthened my skills in designing intelligent systems for complex tasks like information extraction, summarization, and agent-based decision-making.

My professional experience as a Senior Consultant at LTIMindtree has honed my ability to work on large-scale AI-powered solutions. There, I led the development of CI/CD pipelines and machine learning models that optimized server performance and automated critical processes, improving efficiency by over 20%. Additionally, I have applied advanced statistical and computational models to address real-world challenges, which has sharpened my problem-solving abilities in interdisciplinary settings.

I am particularly excited about the opportunity to develop LLM-based scientists that can integrate diverse knowledge sources, such as your proprietary LINUS generative foundation model, and combine this with high-throughput simulations and human intuition. My skills in Python and computational chemistry methods, combined with my background in scientific reasoning, would allow me to contribute to accelerating breakthroughs in material discovery and energy technologies.

Thank you for considering my application. I look forward to the opportunity to further discuss how I can contribute to your cutting-edge research efforts.

Sincerely,
Akshay Parate